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GOVERNMENT OF INDIA

RAILWAY DEPARTMENT

(RAILWAY BOARD)

REPORT

BY THE

RAILWAY BOARD

ON

INDIAN RAILWAYS

FOR

1933-34

Volume I

DELHI: MANAGER OF PUBLICATIONS

1934

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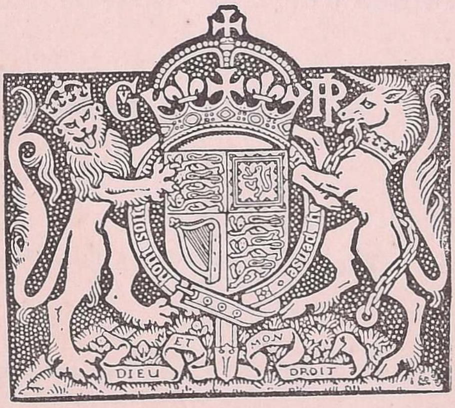

DELHI: MANAGER OF PUBLICATIONS
1934

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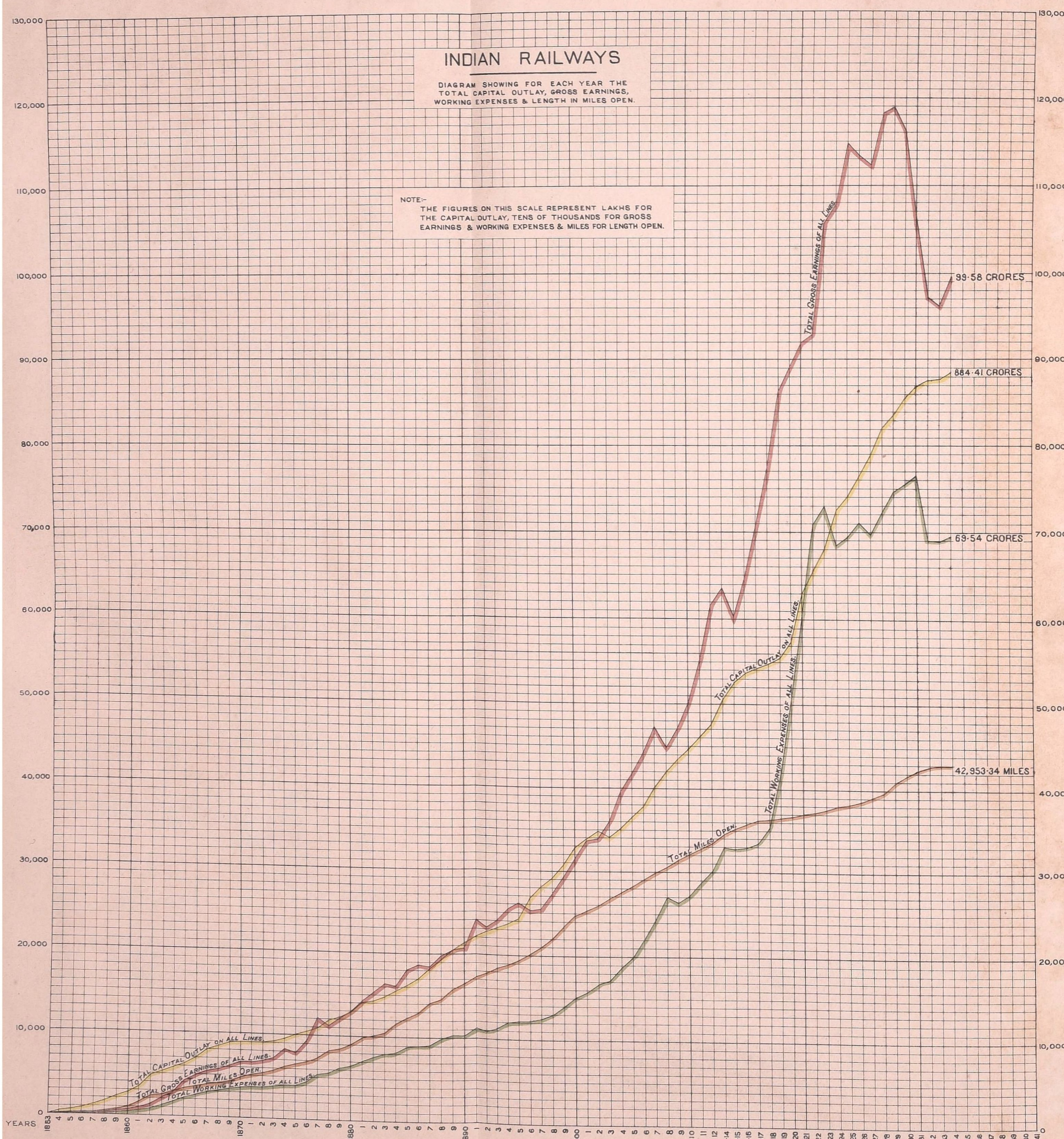

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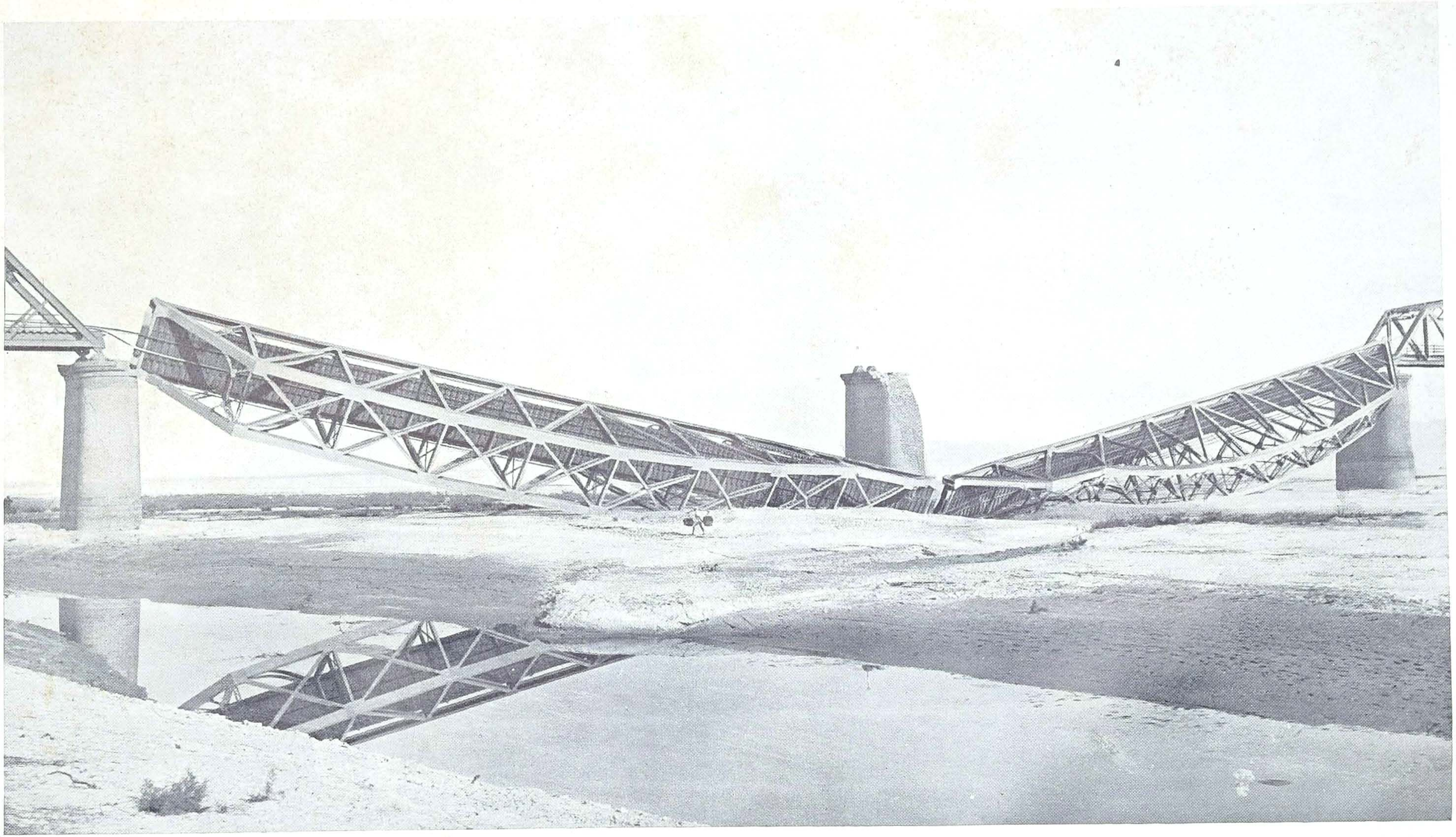


Inchcape Bridge over Gogra River, Spans Nos. 15 & 16 shaken off piers by earthquake.

CHAPTER I.

GENERAL REVIEW.

1. Introduction.—The Annual Report of the Railway Board on Indian Railways is prepared for the financial year as reckoned from the 1st April in one year to the 31st March in the succeeding year and is published in two volumes.

Volume I reviews the general administration, financial results of the working of railways, important developments occurring during the year, and various aspects connected with railway management and operation. Such matters as the construction of new railway lines and rolling stock, improvements in and additions to the methods of transportation, establishment matters such as the recruitment and training of staff and measures adopted to ameliorate the conditions of living and the welfare of the staff and other matters of public interest, are commented upon.

Volume II is a compilation of financial and statistical summaries and statements covering the main heads of the capital and revenue accounts and exhibiting statistics connected with the various aspects of railway working.

2. Monsoon conditions and agricultural results.—As the Indian Railways derive a considerable proportion of their earnings from the transport of the exportable surplus of the staple commodities of the country, the output of which largely depends upon the prevalence or otherwise of the monsoon during appropriate seasons of the year, a few remarks about the incidence of the monsoon and its effect on the yield of the commodities will not be out of place. The monsoon of 1933, which started a little earlier than usual, was well distributed and was generally in excess of the normal. Averaged over the plains of India, the total rainfall during the monsoon period was 14 per cent. above the normal. During the period of the withdrawal of the monsoon, rainfall was defective in the Punjab, the North-West Frontier Province, Sind and north-east India. Taking the year as a whole, the rainfall was above the average in most parts of the country.

The season may, on the whole, be regarded as fairly good from the agricultural stand-point, although crops were damaged in some places by excessive rains, cold and frost. The outturn of rice, although it fell short of the last year's good crop, was satisfactory, particularly in Burma where the yield was 5 per cent. better than last year. The sugarcane crop exceeded the previous year's record yield by 8 per cent. The outturn of jute and cotton increased by 12 and 7 per cent., respectively, as compared with the previous year. In 1933-34 the output of groundnut recorded an increase while that of sesamum and castor seed showed a slight falling off as compared with the previous year. The wheat crop of 1932-33—which was mostly moved during the year under review—was 5 per cent. more than in the preceding season. The production of rape (mustard) crops of 1932-33 showed an increase of 2 per cent. while that of linseed fell by 2 per cent. as compared with the preceding season.

3. The year under review is the first year to show some signs of recovery since the worldwide depression had begun to affect Railways. The earnings of State-owned lines increased from Rs. 84 crores in 1932-33 to Rs. 86 crores in 1933-34 but the net result of the year's working was a loss of about eight crores. No contribution could therefore be made to general revenues during the year.

The earnings from passenger traffic on all railways decreased from 31·3 crores to 30·1 crores, consequent on 12 millions less passengers being carried : the aggregate distance travelled by passengers also having decreased by 456 million miles.

Goods traffic showed an appreciable improvement : the total tonnage carried having increased from 70·6 million tons in the previous year to 76·5 million tons in 1933-34. The net ton miles also increased from 17,203 million

ton miles to 18,707 million ton miles. Earnings from goods traffic consequently increased from 56·89 crores in 1932-33 to 61·58 crores in 1933-34. There was, however, a slight decrease, *i.e.*, 6·32 pies as against 6·35 pies in 1932-33 in the average yield per ton per mile for all commodities.

4. Increased mileage.—During the year 12 new miles were opened for traffic, but due to realignment the net addition to the mileage of railways was 9, of which 2 were State-owned. The total route mileage at the end of the year was 42,953. In addition there were 50 miles under construction on 31st March 1934.

5. Railways and the Legislature.—Judging from the number of questions asked in the Legislative Assembly and the Council of State, it would appear that the members of the Indian Legislature continued, as in the past, to take an increasing interest in the working of the Railway Department. Out of a total number of 3,572 questions asked in both Houses during the year 1933-34, 1,051 or 29·4 per cent. related purely to railway matters as compared with 24·4 per cent. during the previous year.

In addition to this large number of questions, four resolutions also came up for discussion—one in the Legislative Assembly and three in the Council of State. A bill was also passed amending the Indian Railways Act so as to give certain railways additional power to provide and maintain transport services.

(i) The first resolution which had reference to the reduction of railway freight rates for wheat from the Punjab was moved in the Council of State on the 4th September 1933. The mover stated that there were large stocks of wheat available and if freight rates were reduced it would encourage movements to Bengal and Madras. The Chief Commissioner of Railways explained that, in their present financial condition, Railways were not in a position to make any general reduction in freights, but that Railways were constantly examining such matters and had made reductions wherever there was a reasonable possibility of reduced rates attracting additional traffic. The resolution was withdrawn.

(ii) The second resolution which had reference to the grievances of the travelling public on the Assam Bengal Railway was moved in the Legislative Assembly on the 7th September 1933 and the discussion thereon was continued on the 30th January 1934. The mover's main point was that considerable inconvenience was experienced by the absence of raised platforms, waiting sheds at stations and door handles on the inside of carriages. He suggested that the flooding of the Chargola and Longai Valleys was due to the railway embankments. Other non-official members supporting the resolution referred to certain other points. The Honourable Member for Commerce and Railways in replying to the debate stated that the complaint about the low level platforms could only be attended to when the finances of the Railway Company improved. He also pointed out that the Assam Flood Enquiry Committee appointed in 1929 did not attribute the flooding of the Chargola and Longai Valleys to the railway in any way interfering with the flow of water. The Railway Department was always anxious to do what they could to relieve the inconveniences of the travelling public and if the resolution was withdrawn he would forward a copy of the debate to the Agent, Assam Bengal Railway, and see what action could be taken on receipt of the Agent's report. The mover replied that these grievances had been discussed in the Assam Legislative Council where it was stated that the railways were a central subject and therefore no action could be taken by that Council. He had also addressed local railway authorities but without success, and the only remedy left to him was to move the resolution. The resolution was carried.

(iii) The third resolution was moved in the Council of State by the Honourable Mr. Hossain Imam regarding the formation of a committee of experts and members of the Central Legislature for each of the State-managed railways separately to investigate into and report on measures of economy. He said that the object of moving his resolution was to concentrate the attention of the Government and the Public on the conditions prevailing on the rail-

ways. There had been a Sub-Committee of the Retrenchment Committee of 1931 for Railways, but the results of their investigations appeared to be meagre as they had not made a thorough investigation. Moreover the Railway Board's latest Administration Report mentioned little or nothing of what was going on or what had been done since 1931. Railways were being run extravagantly as was shown by their excessive capital expenditure since 1924. Mr. Pope's investigations seemed confined rather to methods of operation than to staff. He also claimed that nothing was being done to pool all the resources of railways in the way that wagons were pooled. Railways were, in effect, being mismanaged and were not paying any contribution to general revenues.

The Honourable Mr. Ghosh Maulik in opposing the resolution on the ground of the expense involved stated that the reason railways were contributing nothing to general revenues was due to general depression and possibly to motor competition. As regards the latter he pointed out that Government were taking steps as was shown by the Road-Rail Conference held in April 1933.

The Honourable Mr. Narayan Chetty opposed the resolution and pointed out how much savings had been effected by Railways by the time the Sub-Committee for Railway Retrenchment had been appointed. He also quoted the Report of Mr. Pope's Committee to show that there were no big economies left on Railways and that the research organisation created as a result of Mr. Pope's recommendations were fulfilling the functions of expert committees.

The Honourable Mr. N. N. Sinha supported the Resolution as he considered that the costs of State Railways were higher than those of Company-managed Railways and the only economy that had been effected had the result of throwing a large number of labourers out of work.

In replying to the resolution, the Chief Commissioner of Railways stated that while railways were always ready to accept criticism from non-railway men, Government could not view the resolution with favour. The resolution suggested that nothing had been done or was being done to effect retrenchment on railways. The best answer to this was that by the time the Sub-committee for Retrenchment reported in 1931, already 4 crores of savings had been effected on railways. Again between the years 1929-30 and 1932-33, the working expenses on railways had been actually reduced by 8·42 crores. The working expenses for the next 3 years were slightly higher but this was due to increments of staff, maintenance which could not be deferred, and development of traffic which is on the increase. The Railway Retrenchment Sub-Committee had recommended an expert committee, but difficulties prevented one being appointed and Mr. Pope was brought out to India in 1932-33, originally with the object of collecting information for an expert committee anticipated in the following year. Mr. Pope in his first report pointed out that there was no need for such a committee as no big economies were left. He recommended small research organisations to investigate in detail all railway operations and these were now established on all the important railways. Mr. Pope had been invited to India again to report on progress and his last report shows that the economies effected as a result of these research organisations thoroughly justifies their continuance. In view of what has been done and what is being done Government could not support the resolution.

The mover while not agreeing with the views put forward against his resolution asked permission of the House to withdraw his resolution in view of the debate having ventilated his subject. The resolution was then withdrawn.

(iv) The fourth resolution was moved in the Council of State by the Honourable Rai Bahadur Lala Ram Saran Das recommending to the Governor General in Council to determine the proportion of communal representation of employees on State Railways on the basis of population of each community in India and to fix the proportion of each community separately in respect of firstly officers and secondly subordinates, clerks, menials and other em-

ployees including workshop labourers and establishment. In moving the resolution he stated that he was personally against the policy of communal representation but as it was the accepted policy of Government he was moving the resolution. He wanted that the total number of employees including workshop and inferior staff should be taken into consideration in fixing percentages and not only a portion of the staff. He also complained that the number of Indians recruited as officers during the year 1932-33 was not adequate on the State and Company-managed railways. The Honourable Member also complained that the proportion of the Anglo-Indians in the upper subordinate posts was very high.

The Honourable Mr. Hossain Imam suggested an amendment that percentages should be fixed firstly for officers, secondly for clerks and thirdly for menials. The Honourable mover agreed and as the Government had no objection to the proposed amendment the amended resolution was discussed. Mr. Hossain Imam complained that action had not been taken by Government on Mr. Hassan's Report on the representation of Muslims and other minority communities. He considered that the real reason for moving this resolution was the rapid Indianisation of Railway Services. He thought that under the garb of Indianisation, Europeans were being replaced by Anglo-Indians.

The Honourable Mr. Bijay Kumar Basu considered that in the interests of nationalism the resolution was inopportune and should not have been moved.

The Honourable Sir Phiroze C. Sethna wanted an assurance from Government that in future no favouritism will be shown to Anglo-Indians in recruitment.

The Chief Commissioner of Railways on behalf of the Government refused to be drawn into details or arguments brought forward by the speakers in support of the resolution and confined himself to the speech delivered by the Honourable Member for Commerce and Railways in the Legislative Assembly on this subject in which he had said that the Government after most careful consideration had made their recommendations to the Secretary of State and which were at that time under his consideration, and in view of this advised the Honourable mover to withdraw his resolution which he did with the permission of the House.

In the Report for last year reference was made to a Bill to amend the Indian Railways Act, which had been introduced in the Legislative Assembly so as to give railways additional power to provide and maintain transport services. The Bill as amended by a Select Committee was passed in the August-September 1933 session. This Act, which received the assent of the Governor General on the 11th September 1933, empowers Railway Companies, other than Companies for which the Statute 42 and 43 Victoria, Chapter 41 provides, to provide and maintain a motor transport or aircraft service, with the sanction of the Governor General in Council.

6. Railway Budget.—The Railway Budget for 1934-35 was presented to both the Houses of the Legislature on the 17th February 1934, after a previous detailed discussion in the Standing Finance Committee for Railways in their meetings held on the 2nd and 13th February 1934. The Budget was discussed generally in the Legislative Assembly on the 19th February 1934 and in the Council of State on the following day. The four succeeding days, *viz.*, from 21st to 24th February 1934 were taken up with the voting of the Demands for grants in the Assembly.

In the course of the general discussion in the Assembly a very considerable variety of matters came under review, most important of them being reduction in rates and fares, economy by amalgamation of Railway systems, slowness of goods trains, manufacture of locomotives in India and co-ordination between railways and roads.

Ten motions for reduction were actually moved during the debates on Demands for grants but none was carried. Seven of them after full discussion were withdrawn and three negatived. Of the motions withdrawn the two which occupied most of the time of the House were in connection with the Statutory Railway Board and high rates. The remaining five related

to amenities for passengers, Indianisation of railway services, importance of co-ordination of railway and road construction and of the organisation of communication Boards throughout the country, system of dealing with appeals from railway employees and the condition of State Railway Press employees. The motions negatived were in respect of the administration of Railway Board, Muslim representation in Railway services and the provision of a first class railway station for Cuttack.

7. Standing Finance Committee for Railways.—The Committee met nine times during the year. They scrutinised the proposals for expenditure to be incurred during 1934-35 both on capital and revenue accounts and also examined the revised forms of the Demands for Grants introduced during the year under review. Besides examining proposals for the creation of certain superior posts on Railways and a scheme for granting loans to certain Branch Line Companies, they considered projects of open line works, the most important of these being the repair and protection works on the Hardinge Bridge on the Eastern Bengal Railway. The Committee examined with considerable interest the savings likely to be effected by the enquiry conducted by Mr. F. A. Pope, General Executive Assistant to the President, London, Midland and Scottish Railway. The details of the extensive damages caused to railway property by the earthquake of the 15th January 1934 also received their attention.

8. Meetings with Agents of Railways and Local Governments.—The Railway Board held two meetings with the Agents of the principal railways, one in Simla in October 1933 and the second in New Delhi in March 1934. The following subjects, among others, were discussed :—

(1) Uneconomical wagons;

(2) tests to be applied to judge productivity of capital expenditure;

(3) revision of the General Classification of Goods; and

(4) the stores purchase policy of Company-managed Railways with particular reference to—

(*a*) encouragement of indigenous industries;

(*b*) increased use of the Indian Stores Department; and

(*c*) a combined call for tenders for coal requirements of State-managed and Company-managed Railways.

The Chief Commissioner of Railways, the Financial Commissioner of Railways and the Member of the Railway Board paid several visits during the course of the year to the headquarters of various Railway Administrations and Local Governments. Their tour programmes, besides being published in the Press, were communicated to Local Governments and important mercantile associations so as to give all important interests an opportunity of expressing their views on railway problems to the Railway Board.

9. Central Advisory Council for Railways.—During the year under review one meeting of the Central Advisory Council for Railways was convened at New Delhi on 18th November 1933. In accordance with the procedure introduced by the Chairman and alluded to in the Administration Report for 1932-33, members of the Council had been invited to submit subjects for discussion and the following were included in the Agenda :—

(i) Supervision and control of food vendors at stations;

(ii) and (iii) restaurant cars and Indian refreshment rooms; and

(iv) Cooly porter contracts.

As regards (i) certain members of the Council complained that while the prices of foodstuffs sold at railway stations were generally higher than the market price, the quality of the food was usually inferior and that, in violation of the rules on the subject, contractors were in the habit of subletting their contracts. The Chairman promised that the latter irregularity should be stopped forthwith. As regards the prices of foodstuffs, he remarked that it was not unreasonable for charges at railway stations to be

somewhat higher than the market rates in the town—a condition prevailing in all countries. The main consideration, in his opinion, was that the prices should not be so high as to constitute a hardship to the travelling public and he promised that the matter should be examined. As regards the quality of the foodstuffs sold, steps would be taken to ensure adequate inspection of the food.

Items numbers (ii) and (iii) were taken together. Certain members of the Council pointed out that comparatively few travellers derived benefit from the European restaurant cars attached to the more important trains, and urged that compartments should be provided for supplying tea and light refreshments to Hindus and Muslims. The Chairman observed that there might be practical difficulties in providing such cars, as the provision of kitchens for Hindus and Muslims in the same car might offend religious susceptibilities. He also pointed out that experiments in the direction of Indian refreshment cars had been tried and had not proved successful. He suggested that the question should be first submitted to the various local advisory committees. He also invited the attention of the members to a list of Hindu and Muslim refreshment rooms, which showed that no less than 260 such refreshment rooms existed on Class I Railways and all the more important stations and junctions were so equipped.

As regards item (iv)—Cooly porter contracts—certain members of the Council pointed out that on the East Indian Railway such contracts were concentrated in the hands of one contractor instead of being let locally, to the detriment of the local people. The Chairman pointed out to the members that such arrangements must be left to be made locally; that on the majority of railways station masters provided the coolies, and that even on certain divisions on the East Indian Railway this was the practice in force.

10. Local Railway Advisory Committees.—These Committees, reference to which has been made in previous reports have continued to function on Class I Railways (except the Jodhpur Railway) and on the Barsi Light Railway. The Committees constitute a useful link between railway administrations and the travelling public affording, as they do, opportunities for discussion on matters of interest and importance to the general public. Their advice on matters coming within their purview is welcomed by Railway Administrations who endeavour to give effect to the recommendations made by the Committees to the extent possible. Pamphlets detailing the subjects discussed by these Committees are published quarterly, and copies are available for sale with the Manager of Publications, Delhi.

During the year 103 meetings of the various Committees were held. A perusal of the pamphlets issued indicates the wide variety of matters discussed. The following is a list of some of the more important of these :—

Provision of separate booking office windows for women.
Improvements in the design of lower class carriages.
Licensed cooly contracts at large stations.
Contract for the sale of refreshments at stations.
Use of dining cars by lower class passengers.
Accommodation for ladies in trains.
Construction of new lines.
Free allowance on luggage.
Pilgrim taxes.
Week-end return tickets.
Booking of " smalls ".
Haulage charge for third class tourist cars.
Facilities for the transport of fruit.
Provision of overbridges at stations.
Electrification of certain stations.
Provision of indication boards at large stations.

Provision of raised platforms.

Provision of through carriages between certain stations.

11. Railway Rates Advisory Committee.—The Railway Rates Advisory Committee, whose sittings had been temporarily suspended in December 1932, after the death of Sir Narasimha Sarma, its first President, recommenced functioning in May 1933 on the appointment, as President, of Sir Zahid Suhrawardy.

During the year under review, the following four cases were referred to the Committee for investigation:—

(*a*) Complaint from Messrs. Meghji Hirji and Company, Nagpur, alleging the quotation of preferential rates by the Bengal Nagpur Railway for firewood from certain stations.

(*b*) Complaint from the West's Patent Press Company Limited, Aligarh, alleging that the rates quoted by the East Indian Railway for unpressed cotton (Kuppas) from Aligarh to Delhi, as compared with the rates for cotton full-pressed, constituted undue preference to the Delhi Mills.

(*c*) Complaint from the General Manager, Ballarpur Collieries against the Bengal Nagpur, Great Indian Peninsula and Bombay, Baroda and Central India Railways alleging that the rates charged for coal from the Chirmiri Collieries (Korea coalfields) as compared with the rates charged from the collieries on the Great Indian Peninsula Railway were unreasonable.

(*d*) Complaint from Messrs. Gokuldass Hunsraj, Calcutta, against the East Indian Railway regarding rates for rice from certain stations.

These four cases were under enquiry at the close of the year, as also three other cases which had been referred to the Committee during the previous year

The Committee reported on the following two cases referred to them for investigation in 1932-33:—

(i) Complaint from the Central Provinces and Berar Mining Association against the Bengal Nagpur Railway regarding the rates for manganese ore from certain stations on the Bengal Nagpur Railway to Bombay *viâ* Nagpur and *viâ* Itwari.

(ii) Complaint from the Roller Flour Mills, Patiala, regarding the rates for flour on the East Indian Railway.

As regards the first case, the Committee reported that the rates to *viâ* Nagpur and *viâ* Itwari from the several stations referred to by the applicant, were excessive and unreasonable, and recommended certain reduced rates. The Government of India accepted the recommendations of the Committee. In the second case also, the Government of India accepted the recommendation of the Committee that the telescopic basis of the rate for flour on the East Indian Railway for distances beyond 600 miles should be reduced from 0·14 pie to 0·115 pie per maund per mile.

Four other representations received by the Railway Board for a reference to be made to the Railway Rates Advisory Committee were not so referred during the year for the following reasons:—

(*a*) Reference in connection with the question of the 15 per cent. surcharge on coal freights, as the general question regarding the modification of the surcharge was under the consideration of Government.

(*b*) Reference in connection with the rates for iron and steel over the East Indian Railway, as the rates complained of by the applicant were subsequently withdrawn.

(*c*) Reference in connection with the classification of Upson Board and Upson Insulating Board. This was under correspondence

between the Railway Board and the Railway Administration concerned at the end of the year under review.

(*d*) Reference in connection with the rates for grain, pulses and seeds common from Sidhauli to Howrah, as there did not appear to be a *primâ facie* case for investigation by the Committee.

12. **Mr. Pope's investigations.**—It was mentioned in the last year's report that the services of Mr. Pope, General Executive Assistant to the President of the London, Midland and Scottish Railway had been obtained to ascertain whether further economies were possible on Indian Railways and that as a result of his visit, small organisations had been created on the more important railways to conduct detailed investigations termed 'job analysis'. Reports on job analysis up to the end of the year from the majority of Railways show that the work is being continued vigorously and with an encouraging degree of success. The more interesting features in these reports are briefly summarised below :—

(i) *On the Bombay, Baroda and Central India Railway* though job analysis started only in October 1933, the annual savings which have been accepted are estimated at more than Rs. 3·52 lakhs, whereas the annual cost of the job analysis organisation is placed at less than Rs. 0·60 lakhs. The principal savings have been effected by intensive use of locomotives and reduced staff in certain workshops and at stations.

(ii) *Burma Railways.*—On this railway savings amounting to about Rs. 26,000 were realised during the year and it is estimated that these will increase to some Rs. 74,000 annually in future years.

(iii) *On the Eastern Bengal Railway* a conservative estimate places the economies effected during the year at Rs. 2,14,864 whereas the cost of job analysis amounted to Rs. 63,000 only. The economies are chiefly due to the better use of rolling stock, more efficient maintenance of signals, reduced consumption of high grade fuel and disuse of certain telegraph lines.

(iv) *On the East Indian Railway* savings amounting to more than Rs. 7 lakhs were effected during the year, while the total cost of the job analysis organisation amounted to some Rs. 77,000 only. Investigations are in progress under many separate heads, which include examination of the work of the Stores Department, running sheds, sick lines, stations and marshalling yards. Economies are also expected from increasing the load of goods trains and the more intensive use of rolling stock.

(v) *Great Indian Peninsula Railway.*—On the Great Indian Peninsula Railway the cost of the job analysis organisation during the year 1933-34 amounted to Rs. 56,680 and the savings effected to Rs. 4·29 lakhs, chiefly under wages. Since the work started, no less than 136 items have been investigated covering many widely divergent activities.

(vi) *Madras and Southern Mahratta Railway.*—Job analysis was begun on this railway from 1st November 1933, and savings amounting to Rs. 46,020 had already been realised up to 31st March 1934 and economies totalling Rs. 72,559 annually are anticipated. Savings effected in the Electrical Department alone amounted to Rs. 25,579.

(vii) *On the North Western Railway* the savings effected amounted to about Rs. 12·67 lakhs, whereas the cost of the job analysis organisation was Rs. 32,000 only. One of the most important investigations related to the maintenance of track, resulting in a saving of about Rs. $5\frac{1}{4}$ lakhs. A further saving of Rs. $2\frac{1}{2}$ lakhs was obtained from an analysis of shunting and other activities at stations and of Rs. 1 lakh from improved methods of utilising scrap.

(viii) *On the South Indian Railway* the savings accepted during the year amounted to Rs. 22,704 and further economies aggregating Rs. 32,493 were under consideration.

Mr. Pope's services were again kindly lent by the London, Midland and Scottish Railway during the cold weather 1933-34. He spent some weeks examining methods of operation on the Eastern Bengal, East Indian and North Western Railways and then re-assembled his original committee in Calcutta where they drew up a second report. This report reviewed the progress of job analysis on the various railways up to date and pointed out certain further items as worth investigation. But, besides further possibilities of economy, the report also suggested directions in which the earnings of Railways might be capable of enhancement, *viz.*, improved publicity work, increased efforts of salesmanship, closer study of exports, imports and markets, and more elasticity in the quotation of rates and fares. The Committee also emphasised the possibility of curtailing unnecessary competition between railways and called attention to some of the methods recently adopted by the London, Midland and Scottish Railway to increase revenue.

The work of job analysis is still in hand on most of the railways and the recommendations made by Mr. Pope in his second report are at present under the consideration of the Railway Board.

CHAPTER II.

FINANCIAL.

I.—*Trade Review.*

13. The total value of exports including re-exports from British India during the year 1933-34, amounted to Rs. 150 crores and that of imports to Rs. 115 crores. As compared with the previous year the export traffic recorded an improvement of Rs. 14 crores or an increase of 10 per cent., while the imports declined by Rs. 17 crores or a decrease of 13 per cent.

Exports.—Despatches of raw cotton rose from 2,063,000 bales valued at Rs. 20·3 crores to 2,740,000 bales valued at Rs. 27 crores. Shipments of twist and yarn advanced slightly in quantity from 15·1 to 16·4 million lbs. and from Rs. 79 to 82 lakhs in value. The exports of raw and manufactured jute recorded an improvement of Rs. 1 crore. Shipments of raw jute increased from 3,153,000 bales valued at Rs. 9·73 crores to 4,190,000 bales valued at Rs. 10·93 crores. Gunny cloth rose from 1,012 to 1,053 million yards in quantity and from Rs. 10·24 to 11·38 crores in value. Exports of wheat remained practically unchanged. Despatches of tea declined from 379 to 318 million lbs. in quantity, but the value rose from Rs. 17·15 to 19·85 crores, owing to higher prices. Exports of oilseeds amounted to 1,124,000 tons valued at Rs. 13·66 crores, which recorded an increase of 53 per cent. in quantity and 21 per cent. in value, as compared with the previous year. The improvement was mainly due to increased shipments of linseed which rose from 72,000 to 379,000 tons, groundnuts from 433,000 to 547,000 tons, cottonseed from 2,000 to 6,000 tons and sesamum from 10,000 to 15,000 tons. Exports of hides and skins recorded an improvement from 41,800 tons worth Rs. 7·43 crores to 61,400 tons worth Rs. 9·90 crores. Shipments of metals and ores advanced from 695,000 tons valued at Rs. 4·68 crores to 976,000 tons valued at Rs. 5·49 crores. Shipments of lac amounted to 731,000 cwts. valued at Rs. 2·46 crores, representing an increase of 75 per cent. in quantity and 98 per cent. in value, over the previous year.

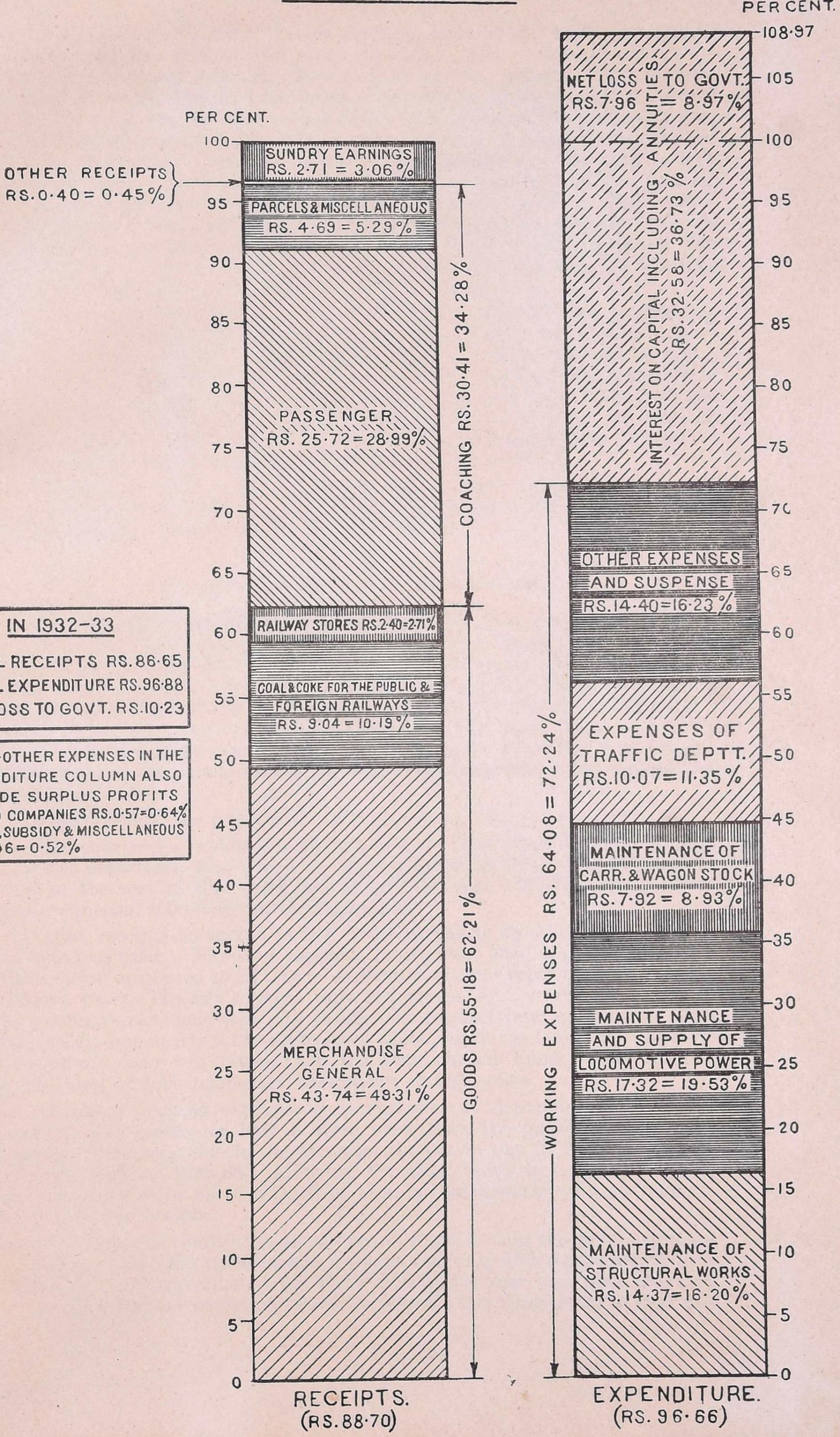
Cotton manufactures including twist and yarn amounted to Rs. 2·73 crores, recording a decline of Rs. 56 lakhs. Despatches of Indian cotton piecegoods declined further from 66·4 million yards worth Rs. 2·09 crores to 56·5 million yards worth Rs. 1·66 crores. Exports of gunny bags decreased from 415 to 401 millions in quantity and from Rs. 11·16 to 9·72 crores in value. Exports of food grains other than wheat declined from 2,056,000 to 1,870,000 tons in quantity and from Rs. 16·08 to 11·75 crores in value. Notable decrease was under rice which dropped from 1,887,000 to 1,744,000 tons in quantity and from Rs. 14·46 to 10·57 crores in value. Rapeseed showed a decline of 41,000 tons. Though the despatches of coffee advanced by 13,000 cwts., the value dropped by Rs. 8 lakhs.

Imports.—Foreign textiles recorded a decrease of 16 crores as compared with Rs. 47 crores in 1932-33, representing a decline of 34 and 12 per cent. as compared with 1932-33 and 1931-32 respectively. The decline under the textile group resulted primarily from smaller imports of cotton piecegoods amounting to 796 million yards valued at Rs. 13·49 crores as compared with 1,225 millions yards valued at Rs. 21·26 crores in 1932-33. Arrivals of cotton twist and yarn also fell off from 45·1 million lbs. valued at Rs. 3·79 crores to 32·1 million lbs. valued at Rs. 2·58 crores. Other important items of the textile group also showed a falling off (notably under silk raw and manufactured Rs. 75 lakhs, wool and woollens Rs. 42 lakhs and artificial silk including yarn and other mixed varieties Rs. 1·42 crores). The imports of raw cotton fell from 84,800 to 42,900 tons. Under the metals group there was a decline of Rs. 24 lakhs. Metals other than iron

Kotri Bridge—General view of the strengthened bridge with cantilevered roadway showing the river in flood.

RECEIPTS AND EXPENDITURE OF STATE OWNED RAILWAYS IN INDIA 1933-34.

FIGURES IN CRORES.



IN 1932-33

TOTAL RECEIPTS RS. 86·65
TOTAL EXPENDITURE RS. 96·88
NET LOSS TO GOVT. RS. 10·23

NOTE:- OTHER EXPENSES IN THE EXPENDITURE COLUMN ALSO INCLUDE SURPLUS PROFITS PAID TO COMPANIES RS. 0·57 = 0·64% & LAND, SUBSIDY & MISCELLANEOUS RS. 0·46 = 0·52%

and steel and manufactures thereof declined from 69,000 to 62,000 tons in quantity and Rs. 4·42 to 3·95 crores in value. The value of hardware imported contracted from Rs. 2·99 to 2·88 crores. Rubber manufactures declined from Rs. 1·98 to 1·88 crores. Imports of foreign sugar continued to decline from 402,000 tons valued at Rs. 4·23 crores in the preceding year to 264,000 tons valued at Rs. 2·71 crores. Arrivals of mineral oils declined slightly in quantity from 188 to 186 million gallons and Rs. 6·70 to 5·89 crores in value. Kerosene oil contracted from 59·5 to 58·1 million gallons. The value of provisions imported declined from Rs. 2·93 to 2·72 crores, mainly due to a falling off in the consignments of vegetable product. Imports of paper and pasteboard recorded a decline of 76,000 cwts. in quantity and Rs. 23 lakhs in value. Consignments of wheat declined from 33,500 tons worth Rs. 29·25 lakhs to 18,300 tons worth Rs. 12·50 lakhs.

Imports of iron and steel rose from 326,000 to 329,000 tons in quantity and Rs. 5·30 to 5·53 crores in value. Under machinery and millwork there was an advance of Rs. 2·23 crores due chiefly to larger arrivals of sugar machinery. The value of motor vehicles imported rose from Rs. 2·43 to 3·19 crores, the number of motor cars imported having risen from 6,201 to 9,759 and omnibuses from 2,676 to 5,496. Fuel oils advanced from 104·5 to 106 million gallons. Rice not in the husk rose considerably from 35,500 to 84,000 tons in quantity and Rs. 31 to 49 lakhs in value.

Balance of trade.—The visible balance of trade in merchandise and treasure for the year 1933-34 was in favour of India to the extent of Rs. 92 crores as compared with Rs. 68 crores in 1932-33.

II.—*Financial Results of State Railways.*

14. Financial results of working.—The financial results of the working of Indian State-owned Railways for 1933-34 were summarised in a memorandum prepared for the Public Accounts Committee by the Chief Commissioner and Financial Commissioner of Railways in June 1934. The figures available then were not in their final form and it was pointed out that there might be certain accounts adjustments which may alter them ultimately, though not to a large extent. Relevant paragraphs from the memorandum (after making the small corrections that were necessary in the figures) are reproduced below.

Stated briefly the position in 1933-34 was as follows:—

The year under review was the first year to show some signs of recovery from the depression into which Indian Railways in common with the railways of the rest of the world had fallen, the year 1932-33 having, as we hope, witnessed the trough of the depression.

Gross receipts amounted to 86⅔ crores or nearly 2¼ crores more than in the previous year. Working expenses, including the appropriation for depreciation amounted to 62 crores, or about a quarter crore more than in the previous year. The net receipts were 24¾ crores, or 2 crores more than in the previous year, but were still insufficient to meet interest charges. The total deficit was nearly 8 crores, to meet which, as in the two previous years, a temporary loan was taken from the Depreciation Fund. This brought up the total of such temporary borrowings to 22½ crores.

Ordinary working expenses (*i.e.*, exclusive of depreciation) amounted nearly to 48⅓ crores, or half a crore more than the previous year. The apparent increase is due to the fact that the cut in pay in force in 1933-34 was half that in 1932-33. Allowing for this, there was a reduction in working expenses of about a third of a crore concurrently with an increase of 2¼ crores in receipts.

The appropriation to the Depreciation Fund during the year amounted to 13½ crores and the withdrawals towards renewals and replacements to 8 crores. The net accretion to the Fund during the year was thus about 5½ crores. But for the temporary borrowings in the last three years to meet the

deficits, the closing balance would have been 32 crores. The actual balance was 9½ crores.

The capital expenditure during the year including both expenditure on new construction, which amounted to a quarter of a crore, and on improvements of the open line, was more than counterbalanced by a large reduction of stores balances and by writing down capital by debit to Depreciation Fund on account of retired assets. As a result, the capital at charge was reduced by 2 crores during 1933-34, *viz.*, from 797 to 795 crores.

Stores balances on all railways were reduced from 12 crores to 10 crores, which constitutes a fresh low record. The balance at the end of 1933-34 is less than half the balance 10 years earlier.

In the following statement the results of 1933-34 are compared in a convenient form with those of past years since the separation of the railway budget from the general budget of the Government of India:—

(Figures in lakhs of rupees.)

—	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	Average for 6 years 1924-25 to 1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	M.	M.	M.	M.	M.	M	M.	M.	M.	M.	M
Mileage open	*27,002*	*27,107*	*27,681*	*28,103*	*29,128*	*30,895*	***28,319***	*31,214*	*31,657*	*31,659*	***31,662***
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross traffic receipts	1,00,13	98,94	98,42	1,03,43	1,03,72	1,02,70	**1,01,22**	95,10	86,63	84,43*	**86,63***
Ordinary operating expenses	51,65	52,99	52,89	53,06	54,21	55,59	**53,40**	54,39†	49,31‡	47,89*	**48,31***
Appropriation to Depreciation Fund	10,35	10,67	10,89	11,38	12,00	12,59	**11,31**	13,07	13,46	13,77	**13,56**
Net Traffic receipts	38,13	35,28	34,64	38,99	37,51	34,52	**36,51**	27,64	23,86	22,77	**24,76**
Net miscellaneous charges (including surplus profits payable to Companies) after deducting miscellaneous receipts.	1,07	1,19	1,27	87	37	2	**80**	11	—1	9	**14**
Net revenues	37,06	34,09	33,37	38,12	37,14	34,50	**35,71**	27,53	23,87	22,68	**24,62**
Interest charges	23,90	24,81	25,87	27,27	29,33	30,46	**26,94**	32,72	33,07	32,91	**32,58**
Surplus	13,16	9,28	7,50	10,85	7,81	4,04	**8,77**	—5,19	—9,20	—10,23	**—7,96**
Paid as contribution to general revenues	6,78	5,49	6,01	6,28	5,23	6,12	**5,98**	5,74	..	..	..
Transferred to railway reserve	6,38	3,79	1,49	4,57	2,58	—2,08	**2,79**	—10,93	—4,95	..	..
Borrowed temporarily from depreciation fund.	..	..	..	..	..	..	..	..	4,25	10,23	**7,96**

* For purposes of comparison with previous years the change in accounting procedure introduced in 1932-33, by which credits for material released from works not charged to revenue are shown as gross receipts instead of as a reduction of working expenses, has been neglected.
† Inclusive of a credit of 1,66 lakhs from the depreciation fund to correct past erroneous adjustments.
‡ Inclusive of a debit of 9 lakhs from the Depreciation Fund to correct past erroneous adjustment.

The year 1933-34 marks the end of the first decade since the separation of the railway budget from the general budget of the Government of India, and it is convenient to consider the results of the decade as a whole. Of the 10 years, the first six were prosperous years and the next four the reverse, but on the whole the net result of working of the State-owned railways in India during these years was a surplus of 20 crores and an accumulated balance in the Depreciation Fund of 32 crores.

Under the Separation Convention of 1924, railways assumed a liability to make a contribution to general revenues, which amounted on the average during the 7 years in which it was paid to a net payment of 6 crores a year. They made this payment from current surpluses in the first 5 years; in the 6th year partly from the year's surplus and partly from previously accumulated reserves; and in the 7th wholly from the latter source. In the last three years they were unable to make any contribution. The total amounts paid during the period were 42 crores or 22 crores in excess of the total surplus during the period. This amount of 22 crores was borrowed from the Depreciation Fund. Consequently at the end of the decade the actual reserves with the railways amounted to ten crores; of which half a crore is invested in

securities on behalf of the Railway Reserve Fund and 9½ crores is the balance of the Depreciation Reserve.

The contributions due for the last three years, which are, under present arrangements, to be met from future surpluses, after the temporary loans from the Depreciation Fund are repaid, amount to about 16 crores.

At the end of 1933-34, the liabilities of railways, to be met in subsequent years, amounted to 38 crores, of which 22 crores represent loans to be repaid to the Depreciation Fund and 16 crores represent the contributions due for the three years 1931-32 to 1933-34. The details are as follows:—

(Crores of rupees.)

	1931-32.	1932-33.	1933-34.	Total.
Temporary loans from Depreciation Fund	4·25	10·23	**7·96**	22·44
Contributions unpaid	5·36	5·23	**5·21**	15·80

The net traffic receipts of about 24¾ crores in 1933-34 amounted to 3·1 per cent. of the capital at charge. This result, though considerably worse than in the earlier years of the decade, was better than in the two years immediately preceding.

(Figures in crores.)

—	Net receipts.	Percentage of capital at charge.	Net profit or loss after paying Interest charges.
	Rs.		Rs.
Average of 5 years, 1924-25 to 1928-29	36·91	5·4	9·72
1929-30	34·52	4·5	4·04
1930-31	27·64	3·5	—5·19
1931-32	23·86	3·0	—9·20
1932-33	22·77	2·9	—10·23
1933-34	**24·76**	**3·1**	**—7·96**

The operating ratio on all State-owned Railways (*i.e.*, the ratio of working expenses to gross earnings) amounted to 56 per cent. excluding depreciation and to 71 per cent. including depreciation. The ratio in 1933-34 is lower than in the past three years. In the table below the ratios of earlier years are given for purposes of comparison :—

—	Percentage, excluding depreciation.	Percentage, including depreciation.
Average of 5 years, 1924-25 to 1928-29	52½	63½
1929-30	54	66
1930-31	59	73
1931-32	57	73
1932-33	57	73
1933-34	**56**	**71**

For purposes of comparison we give below certain figures which are available for certain foreign railways.

The gross receipts of the 4 amalgamated British railways in 1933 amounted to £165 million, the same as in the previous year, and £42½ million (21 per cent.) less than in 1929. Their working expenses amounted to £139 million, or £2 million less than in the previous year and £29 million (17

per cent.) less than in 1929. The operating ratio was 84 per cent. as against 85½ per cent. in the previous year and 81 per cent. in 1929.

The Canadian Pacific Railway earned 114 million dollars in 1933, 10 million dollars (8 per cent.) less than in the previous year, and 96 million dollars (46 per cent.) less than in 1929. Their working expenses were 93 million dollars—11 million dollars (11 per cent.) less than in 1932 and 74 million dollars (44 per cent.) less than in 1929. The operating ratio, which was 79½ per cent. in 1929 and 84 per cent. in 1932, stood at 82 per cent. in 1933.

The Canadian National Railways realised 149 million dollars in 1933, 12 million dollars (7 per cent.) less than in 1932 and 119 million dollars (44 per cent.) less than in 1929. Their working expenses fell to 143 million dollars, which was lower by 12 million dollars (8 per cent.) than in 1932 and 78 million dollars (35 per cent.) below that of 1929. The operating ratio of 96 per cent. is the same as in the previous year but 13½ per cent. higher than in 1929.

The receipts of the principal railways of the United States were 3,095 million dollars in 1933, which was only 1 per cent. less than in 1932, but less than half that in 1929. The working expenses, which were 2,249 million dollars, were 6 per cent. less than in the previous year and about half the figure for 1929. The operating ratio in 1933 was 73 per cent. against 77 per cent. in 1932 and 72 per cent. in 1929.

For the German State Railways, 1933 was as disastrous a year as the previous one. Their working expenses exceeded their earnings and the operating ratio was nearly 105 per cent., being about 2½ per cent. higher than in the previous year. The earnings were almost the same as in the previous year, but their working expenses were increased by about 2 per cent. from 1932. It is understood that a reduction in maintenance charges could have been made but for the fact that they wanted to reduce unemployment.

15. *Gross Receipts.*—The following table compares the receipts in detail with the previous years. For purposes of comparison, credits for material released from works not charged to revenue, which are included in gross receipts from 1932-33 onwards have been excluded :—

(Crores of rupees.)

——	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Passenger earnings	35·75	31·68	28·96	28·94	**27·65**
Other coaching earnings	5·81	5·40	5·27	5·03	**4·92**
Goods earnings	65·25	60·69	55·41	53·76	**58·20**
Sundry earnings	2·21	1·97	1·82	1·63	**1·59**
Suspense	·30	·46	·35	·04	**—·49**
TOTAL	1,09·32	1,00·20	91·81	89·40	**91·87**
Less—					
Refunds	·15	·11	·11	·11	**·11**
Earnings of worked lines	6·47	4·99	5·07	4·86	**5·13**
NET	1,02·70	95·10	86·63	84·43	**86·63**

It will be observed that there is still a downward trend in passenger earnings, whereas goods earnings have recovered considerably from the depth

that they reached in 1932-33: they are about 8 per cent. higher than in 1932-33 and 5 per cent. higher than in 1931-32.

The earnings in 1933-34 are Rs. 27,400 per open mile and are practically the same as in 1931-32.

It is interesting to analyse the figures of earnings from goods traffic and compare them with the figures in previous years. Figures are not available separately for State-owned railways, but the figures that are available for Class I Railways in general in respect of the more important commodities are given below:—

(Figures in lakhs.)

—	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	Rs.	Rs.	Rs.	Rs.	Rs.
Cotton, raw and manufactured	6,91	6,31	4,76	5,19	**5,96**
Fuel for public and foreign railways	10,22	9,56	8,83	8,90	**9,65**
Metallic ores	1,47	93	58	45	**64**
Rice	4,17	3,67	3,71	3,45	**3,89**
Wheat	2,03	2,69	2,16	1,84	**1,85**
Gram, pulse and other grains	3,53	3,42	3,58	3,09	**2,91**
Iron and steel	2,46	2,07	1,81	2,00	**2,21**
Kerosene	1,69	1,50	1,62	1,38	**1,46**
Jute	1,47	1,36	99	1,12	**1,29**
Sugar	2,03	2,03	1,51	1,30	**1,67**
Oil seeds	3,95	4,01	3,52	2,88	**3,64**
Gur, jagree and molasses	94	98	1,27	1,39	**1,21**

The figures indicate a recovery in almost all cases, practically the only exceptions being gram, pulses and other grains, and gur, jagree and molasses. The increases under cotton and rice amount to 14 per cent. and under sugar and oil seeds to 27 per cent.

The statement below compares the receipts of individual railways in 1933-34 with previous years:—

(Figures in lakhs.)

Railways.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	Rs.	Rs.	Rs.	Rs.	Rs.
Assam Bengal	2,05	1,96	1,84	1,56	**1,60**
Bengal Nagpur	9,31	8,17	7,24	6,91	**7,39**
Bombay, Baroda and Central India	11,52	10,90	10,30	10,17	**10,61**
Burma	4,87	4,28	3,74	3,33	**3,57**
Eastern Bengal	6,73	5,86	5,05	4,91	**5,07**
East Indian	19,85	18,24	17,36	17,27	**17,63**
Great Indian Peninsula	14,58	13,33	11,92	11,94	**12,21**
Madras and Southern Mahratta	8,98	7,98	7,15	6,66	**6,84**
North Western (Commercial)	14,39	14,98	13,34	12,74	**13,23**
North Western (Strategic)	1,59	1,48	1,31	1,23	**1,23**
South Indian	6,33	5,80	5,30	5,51	**5,14**
Other Railways	2,50	2,12	2,08	2,20	**2,11**

Five Railways showed a considerable increase in receipts in 1933-34 as compared with the previous year. The Bengal Nagpur, Bombay, Baroda and Central India and North Western Railways each increased their earnings by about half a crore. The East Indian Railway and the Great Indian Peninsula Railway were about $\frac{1}{3}$ crore better than in the previous year.

16. *Working expenses.*—In making a comparison of working expenses with previous years, allowance has to be made for certain important special factors which are detailed in paragraph 17 *et seq* of the Report by the Railway Board on Indian Railways, Volume I, for 1932-33, and which it is unnecessary to reproduce here. Making allowance for all these factors the comparable figures of traffic receipts and working expenses from 1929-30 are as follows :—

(Crores of rupees.)

—	Traffic receipts.	Ordinary working expenses (including cut in pay).
1929-30	103·36	55·92
1930-31	94·66	55·81
1931-32	86·63	49·22
1932-33	84·11	47·42
1933-34	**86·63**	**48·31**

The receipts were $16\frac{3}{4}$ crores below 1929-30 whereas ordinary working expenses were $7\frac{2}{3}$ crores lower. The percentage of fall in receipts was 16 per cent. and in working expenses about $13\frac{1}{2}$ per cent.

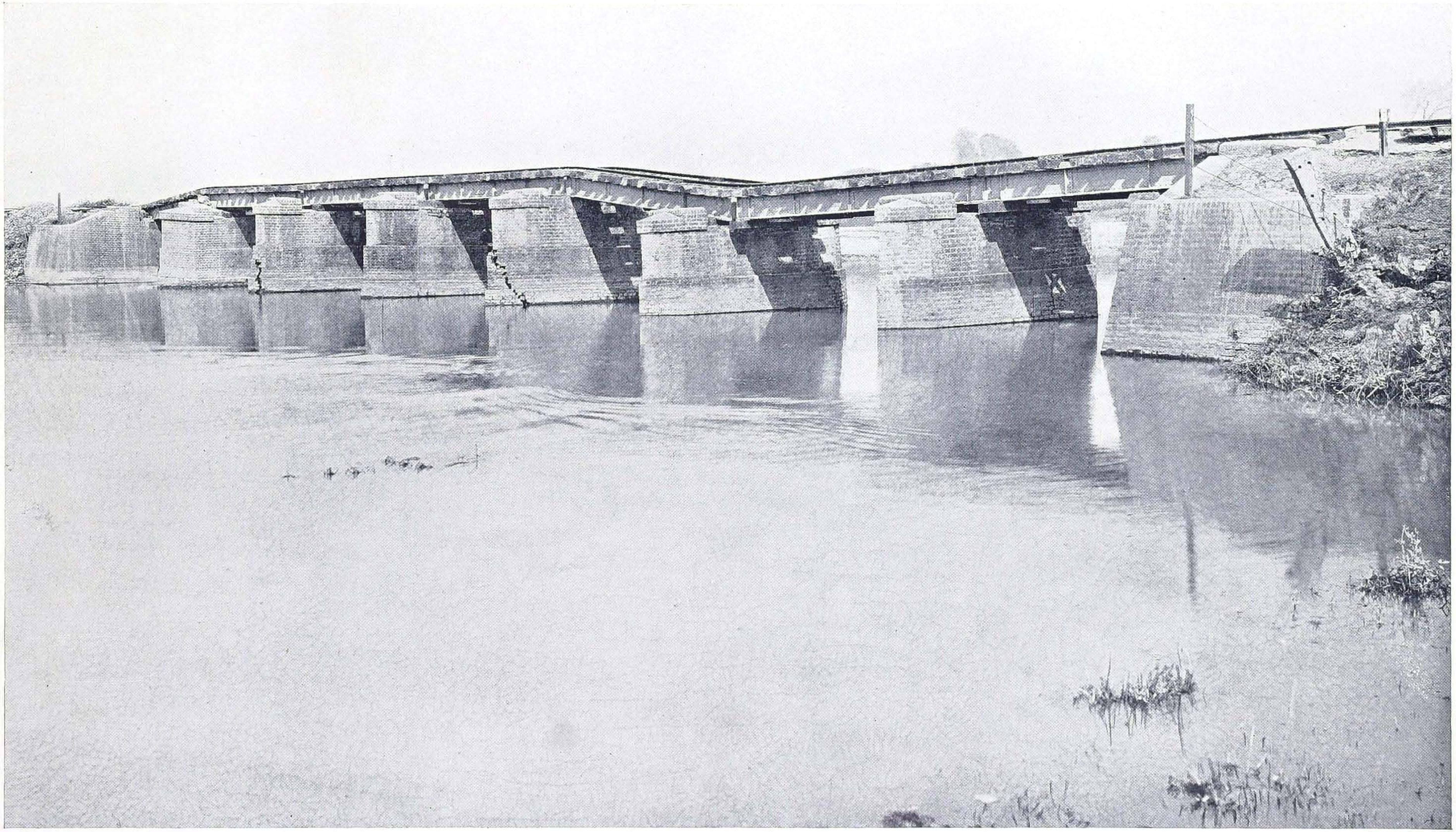
From another point of view, Railways have saved in ordinary working expenses over 45 per cent. of the fall in receipts.

A comparison of the working expenses of each railway with the previous years will be found below. There is an increase in most railways, partly due to the reduction in the emergency cut, with the exception of the East Indian, South Indian, Great Indian Peninsula and Bombay, Baroda and Central India Railways.

(Figures in lakhs.)

Railways.	1929-30.	1930-31.	1931-32.	1932-33.	**1933-34.**
	Rs.	Rs.	Rs.	Rs.	**Rs.**
Assam Bengal	1,13	1,12	1,09	1,02	**1,07**
Bengal Nagpur	5,51	5,36	4,83	4,77	**4,82**
Bombay, Baroda and Central India . .	6,07	6,14	5,47	5,38	**5,26**
Burma	2,57	2,61	2,33	2,04	**2,18**
Eastern Bengal	3,84	3,74	3,29	3,16	**3,33**
East Indian	10,21	9,95	9,02	8,88	**8,78**
Great Indian Peninsula	8,37	8,57	7,13	7,06	**6,99**
Madras and Southern Mahratta . .	3,95	3,88	3,33	3,24	**3,25**
North Western (Commercial) . . .	8,47	9,03	7,74	7,24	**7,57**
North Western (Strategic) . . .	1,68	1,76	1,38	1,42	**1,39**
South Indian	2,79	2,87	2,63	2,76	**2,67**
Other Railways	1,00	1,02	98	92	**1,00**

17. *Net receipts.*—The details of net receipts (after meeting the appropriation to the Depreciation Fund, which represents expenditure not controllable by the railway administration) are given below. It will be noticed that all the railways are better than last year except that the South Indian Rail-



Masonry bridge on the Katihar-Jogbani Section damaged by earthquake.

way and other Railways are appreciably worse and that the Assam Bengal Railway is the same as last year.

(Figures in lakhs.)

Railways.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	Rs.	Rs.	Rs.	Rs.	Rs.
Assam Bengal	65	54	44	22	22
Bengal Nagpur	2,56	1,49	1,07	75	1,19
Bombay, Baroda and Central India	4,12	3,43	3,45	3,40	3,96
Burma	1,82	1,15	88	75	84
Eastern Bengal	2,02	1,20	80	77	77
East Indian	7,43	6,00	5,99	6,04	6,46
Great Indian Peninsula	4,38	2,87	2,85	2,90	3,28
Madras and Southern Mahratta	4,13	3,22	2,92	2,52	2,69
North Western (Commercial)	3,75	3,69	3,27	3,02	3,37
North Western (Strategic)	—50	—70	—50	—63	—59
South Indian	2,89	2,23	1,92	1,98	1,69
Other Railways	1,27	86	86	1,05	88

18. *Losses and gains.*—Though the results of nearly every railway during 1933-34 show an improvement as compared with the previous year, there were only two of the bigger systems, *viz.*, the East Indian Railway and the Bombay, Baroda and Central India Railway, that showed an appreciable gain to the State. For the purpose of calculating these gains and losses, the figures shown in the Companies' accounts have been recast to accord with the Government accounts procedure, *i.e.*, the working expenses include the appropriation to the Depreciation Fund and not the actual expenditure on renewals and replacements, which are taken into account in the Companies' own accounts.

The net gain or loss of the various railways for the last 5 years is given below :—

(Figures in lakhs.)

	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
State-managed Railways.	Rs.	Rs.	Rs.	Rs.	Rs.
Burma	+4	—44	—74	—75	—71
Eastern Bengal	+16	—80	—1,23	—1,28	—1,25
East Indian	+1,61	—18	—24	—13	+37
Great Indian Peninsula	+8	—1,72	—1,78	—1,68	—1,24
North Western (Commercial)	—64	—1,16	—1,58	—1,78	—1,36
North Western (Strategic)	—1,90	—2,18	—1,99	—2,09	—2,03
TOTAL	—65	—6,48	—7,56	—7,71	—6,22
Company-managed Railways.					
Assam Bengal	—24	—39	—52	—74	—73
Bengal Nagpur	—66	—1,99	—2,48	—2,80	—2,27
Bombay, Baroda and Central India	+1,25	+43	+45	+41	+98
Madras and Southern Mahratta	+89	+1	+14	—27	—4
South Indian	+1,19	+31	+1	+6	—21
Other Railways	+77	+20	+19	+26	+10
TOTAL	+3,20	—1,43	—2,21	—3,08	—2,17

19. *Capital at charge.*—The statement below shows how the capital at charge on all railways in which the State has a financial interest has been growing. For purposes of comparison, sterling liabilities included in the capital at charge have throughout been converted into rupees according to the present procedure, *i.e.*, at the rate of exchange in force at the time the liabilities were assumed.

(Crores of rupees.)

	Capital at charge at the end of the year.
1923-24	629
1924-25	643
1925-26	663
1926-27	690
1927-28	722
1928-29	747
1929-30	778
1930-31	791
1931-32	798
1932-33	797
1933-34	**795**

The capital at charge has increased in 10 years by 166 crores. It increased rapidly in the first six prosperous years at an average rate of 25 crores per annum. During the next 4 years, the average has fallen to 4 crores per annum. But in these years stores balances, which form part of our capital at charge, have been steadily falling, the balance at the end of 1933-34 being nearly 7 crores below that four years earlier. Moreover, there have been considerable decreases in the capital at charge as a result of retirement of assets without replacement when the original cost of the asset is credited to capital by debit to the Depreciation Fund. This would amount at a rough guess to not less than 4 crores. Finally, in 1932-33 the capital at charge was reduced by nearly a crore as representing the difference between the actual amount of rupees required for repayment of the share capital when the Burma Railways were purchased and the capital as it stood on the books of the Railway. Making full allowance for all these factors, the average increase in capital during the 4 years ending 1933-34 may be taken at about 7 crores per annum, which is less than one-third of the average in the first 6 years.

Of the increase in the decade of 166 crores, the expenditure on new lines amount to 48 crores; and 16 crores represent the price paid by the State for acquiring private interests in lines already in existence, for example, Delhi-Ambala-Kalka, Burma and Southern Punjab Railways. The balance of over 100 crores represents the expenditure incurred on the improvements of the open line.

20. *Works expenditure.*—The statement below gives the total expenditure on works year by year from 1924-25 and shows separately expenditure on new constructions, open line works—capital and depreciation fund separately—and amounts spent on the purchase of railways.

(In lakhs of rupees.)

Years.	New constructions.	Open line works.	Purchase of railways and branch line shares.	Total capital.	Depreciation Fund.	Total works expenditure.
1924-25	3,20	10,07	19	13,46	7,29	20,75
1925-26	3,93	15,32	..	19,25	7,98	27,23
1926-27	6,77	16,13	4,33	27,23	8,05	35,28
1927-28	10,26	22,19	3	32,48	10,95	43,43
1928-29	9,28	15,77	4,30	29,35	9,60	38,95
1929-30	6,65	16,47	7,06	30,18	11,76	41,94
1930-31	4,28	8,92	1	13,21	9,74*	22,95*
1931-32	2,79	3,90	..	6,69	8,26	14,95
1932-33	57	—50	..	7	6,35	6,42
1933-34	**22**	**—2,28**	..	**—2,06**	**8,08**	**6,02**

* Excludes a debit of 1,66 lakhs for correction of past erroneous adjustments.

No new lines have been started since 1930-31; and the expenditure thereafter, which, as will be seen from the above statement, has been falling steadily and rapidly, is only on lines which had been started earlier. These are now all practically completed. Expenditure on open line works amounted to about 6 crores in each of the years 1932-33 and 1933-34. This amount was less than one-fifth of the highest expenditure in the decade, *viz.*, 33 crores. This low figure is partly the result of reductions in stores balances, or in other words to eating up of stocks, but to a large extent it is due to the policy of postponing all but essential or directly and immediately remunerative works as far as possible.

21. *Stores balances.*—The total stores balances at the end of 1933-34 amounted to 10 crores, which constitutes a new low record. During the year a decrease of 2 crores was achieved. This reduction which follows a reduction of 3 crores in the two preceding years is worthy of notice, but is to a certain extent due to the fall in prices and general decrease in volume of railway business.

The table below gives the figures of stores balances since 1921-22 :—

(In thousands.)

Railways.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Assam Bengal .	24,81	31,48	18,38	12,30	9,49	12,59	13,01	14,91	18,04	22,05	20,70	15,57	**13,56**
Bengal Nagpur .	1,40,26	1,61,88	1,48,09	1,49,44	1,27,64	1,17,17	1,07,87	1,32,69	1,36,28	1,21,17	1,06,76	1,01,74	**97,08**
Bombay, Baroda and Central India.	2,76,83	2,72,43	2,33,25	1,77,39	1,62,48	1,46,28	1,67,17	1,62,35	1,60,82	1,64,54	1,46,34	1,30,51	**1,08,81**
Burma . .	66,62	84,85	98,71	84,62	75,00	44,82	59,41	61,25	55,25	52,55	50,83	43,21	**40,00**
Eastern Bengal .	2,51,63	1,76,20	1,57,85	1,21,99	1,12,27	84,07	84,39	79,53	77,21	76,33	68,70	55,47	**40,23**
East Indian (including Oudh and Rohilkhand).	3,92,50	4,39,19	4,10,66	3,14,19	2,81,46	2,48,17	2,98,92	3,14,89	3,03,84	2,48,39	2,27,47	2,08,64	**1,60,12**
Great Indian Peninsula.	4,66,49	3,88,35	3,97,77	2,89,49	2,38,67	2,23,13	2,53,49	2,41,88	2,62,01	2,51,73	2,18,32	1,79,58	**1,51,14**
Madras and Southern Mahratta.	1,50,52	1,66,09	1,50,91	1,02,86	84,31	76,75	93,91	83,29	82,60	79,29	76,03	71,80	**53,00**
North Western .	3,94,12	3,92,69	3,79,78	2,73,36	2,44,34	2,86,41	3,91,59	3,69,62	3,47,89	2,59,81	2,27,15	1,84,65	**1,65,84**
South Indian .	1,14,45	1,38,66	99,02	77,04	1,13,30	1,06,60	1,23,76	1,14,51	1,05,72	93,76	79,72	70,46	**56,15**
Other Railways .	31,08	41,01	42,63	42,59	36,87	39,33	46,55	43,75	52,69	57,14	52,42	46,81	**42,44**
Strategic lines .	57,76	57,68	72,10	63,38	82,62	83,53	92,34	90,17	92,45	93,76	90,89	1,01,90	**93,25**
TOTAL .	23,67,07	23,50,51	22,09,15	17,08,65	15,68,45	14,68,85	17,32,41	17,08,84	16,94,80	15,20,52	13,65,33	12,10,34	**10,21,62**

22. *Contribution to General Revenues.*—The contribution to General Revenues due for the year 1933-34 amounts to Rs. 521 lakhs or 2 lakhs less than in 1932-33. The payment of the contribution has been held in abeyance

until the return of prosperous years. The statement below shows how the amount is arrived at :—

(Based on actuals of penultimate year 1931-32.)

	(Figures in thousands.) Rs.	Rs.
1. 1 per cent. on capital of Rs. 7,22,94,99 at charge—commercial lines—to end of 1931-32	...	7,22,95
2. (i) Receipts (1931-32)—		
Gross traffic receipts—commercial lines	85,31,16	
Subsidized companies—share of surplus profits	14,75	
Interest on depreciation and reserve fund balances and dividends on investments in branch lines and miscellaneous receipts	99,17	
Total Receipts		86,45,08
(ii) Charges (1931-32)—		
Working expenses—commercial lines	60,95,91	
Indian States and railway companies' share of surplus profits	64,19	
Land and subsidy	9,17	
Interest—		
On capital at charge—commercial lines	30,26,62	
On capital contributed by Indian States and companies	1,31,14	
Miscellaneous railway expenditure	41,71	
Contribution at 1 per cent. on capital at charge—commercial lines	7,22,95	
Total Charges		1,00,91,69
(iii) Deficit		14,46,61
(iv) Contribution of 1/5th of surplus		...
3. Total contribution from railway revenues 1 *plus* 2 (iv)		7,22,95
Deduct—Loss on strategic lines—		
(i) Interest on capital	1,48,87	
(ii) Miscellaneous railway expenditure	4,05	
(iii) Loss in working	43,48	
(iv) Interest on the amount of loss in working met from Depreciation Reserve Fund of commercial lines	5,55	
		2,01,95
4. Net payment due from railway to general revenues in 1933-34		5,21,00

23. *Depreciation Fund.*—The amount appropriated to the depreciation fund by debit to the working expenses of State-owned railways and the amount drawn from the fund to meet the expenditure incurred on replacement and renewals actually carried out on those railways during 1932-33 and 1933-34 are given in the statement below:—

(Figures in thousands.)

Railways.	Credits to Depreciation Fund by debit to Revenue on account of depreciation in 1932-33.	Amount spent on Replacements and Renewals and charged to Depreciation Fund in 1932-33.	Credits to Depreciation Fund by debit to Revenue on account of depreciation in 1933-34.	Amount spent on Replacements and Renewals and charged to Depreciation Fund in 1933-34.
	Rs.	Rs.	Rs.	Rs.
State Lines managed by State.				
North Western	2,92,37	1,83,14	2,71,55	1,11,32
Eastern Bengal	97,68	39,31	97,43	80,77
East Indian	2,35,38	96,05	2,38,56	2,68,85
Great Indian Peninsula . . .	1,97,94	79,13	1,94,26	1,19,21
Burma	53,44	46,58	55,28	28,37
State Lines managed by Companies.				
Bengal Nagpur	1,38,85	30,45	1,37,75	37,14
Bombay, Baroda and Central India .	1,38,74	52,23	1,38,85	53,02
Madras and Southern Mahratta .	90,89	55,07	89,80	56,37
South Indian	77,20	35,64	77,50	31,29
Other Railways	54,73	23,33	55,50	24,29
Adjustments:—				
1. Net result of adjustment of credits on account of released materials and expenditure on non-wasting assets of company worked Railways under Repairs and Maintenance.	..	—6,23	..	—3,10
TOTAL .	13,77,22	6,34,70	13,56,48	8,07,53

24. An analysis of the financial results of the working of the railways owned by the State is given in the following statement, for the last three years, by each railway:—

(Figures in thousands of rupees.)

Railways.	Year	(c) Capital at charge.	*Deduct* amount of capital contributed by Companies and Indian States.	Net Government Capital at charge.	Receipts.	Working Expenses including Depreciation.	Net Receipts.	Percentage of Net Receipts on Capital at charge.	Charge against net Revenue Receipts. Payment on account of share of Surplus Profits.	Charge against net Revenue Receipts. Interest Annuity and Sinking Fund charges.	Gain.	Loss.
1	2	3	4	5	6	7	8	9	10	11	12	13
State Lines managed by State.												
North Western	1931-32	1,48,36,74	..	1,48,36,74	14,65,19	11,88,59	2,76,60	1·9	..	6,33,68	..	3,57,08
	1932-33	1,48,04,40	..	1,48,04,40	14,14,63	11,75,20	2,39,43	1·6	..	6,26,24	..	3,86,81
	1933-34	**1,47,87,12**	..	**1,47,87,12**	**14,63,88**	**11,85,48**	**2,78,40**	**1·9**	..	**6,17,73**	..	**3,39,33**
Eastern Bengal	1931-32	51,34,71	..	51,34,71	5,05,07	4,24,66	80,41	1·6	..	2,03,33	..	1,22,92
	1932-33	51,38,86	..	51,38,86	4,98,11	4,21,81	76,30	1·5	..	2,03,84	..	1,27,54
	1933-34	**50,98,88**	..	**50,98,88**	**5,09,60**	**4,32,92**	**76,68**	**1·5**	..	**2,01,77**	..	**1,25,09**
East Indian	1931-32	1,47,23,75	1,12,14	1,46,11,61	17,35,65	11,37,18	5,98,47	4·1	..	6,22,33	..	23,86
	1932-33	1,45,49,13	1,12,14	1,44,36,99	17,56,01	11,51,75	6,04,26	4·1	..	6,17,37	..	13,11
	1933-34	**1,43,85,63**	**1,12,14**	**1,42,73,49**	**18,06,93**	**11,60,94**	**6,45,99**	**4·5**	..	**6,08,69**	**37,30**	..
Great Indian Peninsula	1931-32	1,17,87,89	..	1,17,87,89	11,92,31	9,06,71	2,85,60	2·4	..	4,63,35	..	1,77,75
	1932-33	1,22,92,13	..	1,22,92,13	12,08,49	9,18,84	2,89,65	2·4	..	4,58,05	..	1,68,40
	1933-34	**1,21,72,88**	..	**1,21,72,88**	**12,35,42**	**9,07,06**	**3,28,36**	**2·7**	..	**4,52,50**	..	**1,24,14**
Burma	1931-32	35,80,36	..	35,80,36	3,73,84	2,86,46	87,38	2·4	..	1,60,96	..	73,58
	1932-33	35,05,52	..	35,05,52	3,49,05	2,73,92	75,13	2·1	..	1,50,58	..	75,45
	1933-34	**35,19,96**	..	**35,19,96**	**3,66,22**	**2,82,29**	**83,93**	**2·4**	..	**1,54,53**	..	**70,60**
State Lines managed by Companies.												
Bengal Nagpur	1931-32	76,77,25	10,53,13	66,24,12	7,23,67	6,17,45	1,06,22	1·4	..	3,54,63	..	2,48,41
	1932-33	76,99,05	10,32,47	66,66,58	7,02,99	6,28,14	74,85	1·0	..	3,54,56	..	2,79,71
	1933-34	**77,13,70**	**10,12,20**	**67,01,50**	**7,51,31**	**6,32,33**	**1,18,98**	**1·5**	..	**3,45,93**	..	**2,26,95**

Bombay, Baroda and Central India	1931-32	73,60,14	5,50,86†	68,09,28	10,29,70	6,85,50	3,44,20‡	4·7	11,34‡	2,87,79	45,07	..
	1932-33	75,77,98	5,50,85†	70,27,13	10,22,95	6,82,79	3,40,16	4·5	12,60‡	2,86,91	40,65	..
	1933-34	**75,75,05**	**5,50,85†**	**70,24,20**	**10,65,13**	**6,68,37**	**3,96,76**	**5·2**	**13,64‡**	**2,85,24**	**97,88**	..
Madras and Southern Mahratta	1931-32	53,10,63	10,68,25	42,42,38	7,14,71	4,22,60	2,92,11	5·5	40,06	2,38,33	13,72	..
	1932-33	55,04,15	10,68,25	44,35,90	6,71,93	4,12,35	2,59,58	4·6	41,32	2,38,12	..	19,86
	1933-34	**55,06,92**	**10,68,25**	**44,38,67**	**6,93,31**	**4,24,48**	**2,68,83**	**4·9**	**31,45**	**2,36,74**	**64**	..
South Indian	1931-32	44,70,61	6,36,98‖	38,33,63	5,30,60	3,37,83	1,92,77	4·3	7,94	1,83,50	1,33	..
	1932-33	44,84,69	6,35,81‖	38,48,88	5,59,96	3,61,63	1,98,33	4·4	7,13‡	1,84,80	6,40	..
	1933-34	**44,92,94**	**6,35,81‖**	**38,57,13**	**5,16,93**	**3,48,04**	**1,68,89**	**3·8**	**7,26‡**	**1,82,41**	..	**20,78**
Other railways	1931-32	41,48,13	5,36,35	36,11,78	3,92,01	2,61,29	1,30,72	3·2	4,85	1,58,74	..	32,87
	1932-33	41,55,81	6,36,73	35,19,08	3,78,16	2,52,97	1,25,19	3·2	4,16	1,70,05	..	49,02
	1933-34	**42,53,19**	**6,33,04**	**36,20,15**	**3,72,75**	**2,60,65**	**1,12,10**	**2·6**	**4,30**	**1,72,43**	..	**64,63**
Suspense	1931-32	..	..	..	..	10	—10	..	..	..	..	10
	1932-33	..	..	..	..	..	..	..	..	..	..	..
	1933-34	..	..	..	..	..	..	..	..	..	..	..
Adjustments :—												
1. Net result of adjustment of credits on account of released materials and expenditure on non-wasting assets of company-managed railways under Repairs and Maintenance.	1931-32	..	..	..	..	9,01	—9,01	..	..	..	..	9,01
	1932-33	..	..	..	..	6,23	—6,23	..	..	..	..	6,23
	1933-34	..	..	..	..	**3,10**	**—3,10**	..	..	..	..	**3,10**
2. Write-back of Renewal and Replacement Expenditure of the Company's Sections of the Bengal and North Western and Rohilkund and Kumaon Railways for the years 1924-25 to 1929-30	..	..	..	..	..	..	..	..	..	..	..	..
Interest on Depreciation and Reserve Fund balances	1931-32	..	..	..	93,17	..	93,17	..	..	..	93,17	..
	1932-33	..	..	..	72,69	..	72,69	..	..	..	72,69	..
	1933-34	..	..	..	**57,21**	..	**57,21**	..	..	..	**57,21**	..
Net Miscellaneous Receipts and Charges not attributable to any one Railway.	1931-32	..	..	..	..	..	..	..	..	..	..	27,77*
	1932-33	..	..	..	..	..	..	..	..	..	..	16,54*
	1933-34	..	..	..	..	..	..	..	..	..	..	**14,74***
Total (Central)	1931-32	7,90,30,21	39,57,71	7,50,72,50	87,55,92	62,77,38	24,78,54	3·1	64,19	33,06,64	..	9,20,06
	1932-33	7,97,11,72	40,36,25	7,56,75,47	86,34,97	62,85,63	23,49,34	3·0	65,21	32,90,52	..	10,22,93
	1933-34	**7,95,06,27**	**40,12,29**	**7,54,93,98**	**88,38,69**	**63,05,66**	**25,33,03**	**3·2**	**56,65**	**32,57,97**	..	**7,96,33**
Provincial Railways	1931-32	14,61	..	14,61	(a)1,61	..	1,61	..	..	58	1,03	..
	1932-33	14,61	..	14,61	(a)1,81	..	1,81	..	..	57	1,24	..
	1933-34	**14,61**	..	**14,61**	(a)**1,57**	..	**1,57**	..	..	**46**	**1,11**	..

(Figures in thousands of rupees.)

Railways.	Year.	(c) Capital at charge.	*Deduct* amount of capital contributed by Companies and Indian States.	Net Government Capital at charge.	Receipts.	Working Expenses including Depreciation.	Net Receipts.	Percentage of Net Receipts on Capital at charge.	Charge against net Revenue Receipts. Payment on account of share of Surplus Profits.	Charge against net Revenue Receipts. Interest Annuity and Sinking Fund charges.	Gain.	Loss.
1	2	3	4	5	6	7	8	9	10	11	12	13
State Lines managed by Companies—concld.												
Grand Total (Central and Provincial)	1931-32	7,90,44,82	39,57,71	7,50,87,11	87,57,53	62,77,38	24,80,15	3·2	64,19	33,07,22	..	9,19,03
	1932-33	7,97,26,33	40,36,25	7,56,90,08	86,36,78	62,85,63	23,51,15	3·0	65,21	32,91,09	..	10,21,69
	1933-34	**7,95,20,88**	**40,12,29**	**7,55,08,59**	**88,40,26**	**63,05,66**	**25,34,60**	**3·2**	**56,65**	**32,58,43**	..	**7,95,22**
North Western (Commercial)	1931-32	1,13,83,69	..	1,13,83,69	13,33,60	10,07,20	3,26,40	2·9	..	4,84,80	..	1,58,40
	1932-33	1,13,73,94	..	1,13,73,94	12,87,22	9,85,16	3,02,06	2·7	..	4,79,69	..	1,77,63
	1933-34	**1,13,63,56**	..	**1,13,63,56**	**13,37,69**	**10,00,45**	**3,37,23**	**3·0**	..	**4,73,57**	..	**1,36,34**
Non Commercial (Strategic) (North Western and Aden Railways).	1931-32	34,53,05	..	34,53,05	1,31,59	(b)1,81,47	(b)—49,88	—1·4	..	1,48,87	..	1,98,75
	1932-33	34,30,46	..	34,30,46	1,27,41	1,90,04	—62,63	—1·8	..	1,46,55	..	2,09,18
	1933-34	**34,23,56**	..	**34,23,56**	**1,26,20**	**1,85,03**	**—58,83**	**—1·7**	..	**1,44,16**	..	**2,02,99**

† Includes Capital provided by the Palanpur Durbar.

‡ Includes payments to Durbars—

	1931-32.	1932-33.	1933-34.
Jaipur Durbar	6,52	6,49	6,68
Palanpur ,,	17	18	20
Travancore ,,	..	17	17

* Includes recoveries from Travancore Durbar . 97 46 70

‖ Includes capital expenditure on Tinnevelly Quillon (Indian State Section).

(a) Represent figures on account of subsidized Companies, etc.

(b) Includes Aden Railway :—

Column 7 89

,, 8 . . . . —89

(c) Figures of Capital at charge at end of 1931-32 include sterling liabilities involved in the purchase of Railways converted at 1*s*. 6*d*. to the rupee and those at end of 1932-33 and 1933-34 at the average rate of the year in which the liabilities were originally incurred.

III.—*General results of working of all Indian Railways.*

25. Traffic and mileage.—The more important statistical figures of traffic on all Indian Railways are summarised in the table below :—

Particulars.	Year.	Class I Railways.	Other Railways.	Total of all Railways.
(*i*) Total route mileage.	1932-33	38,550	4,394	42,944
	1933-34	**38,298**	**4,655**	**42,953**
(*ii*) Number of passengers originating	1932-33	471,689,600	30,205,600	501,895,200
	1933-34	**456,617,900**	**32,995,200**	**489,613,100**
(*iii*) Number of passenger miles.	1932-33	16,890,772,000	715,682,000	17,606,454,000
	1933-34	**16,384,713,000**	**765,667,000**	**17,150,380,000**
(*iv*) Tons originating	1932-33	67,163,000	3,438,000	70,601,000
	1933-34	**72,951,000**	**3,562,000**	**76,513,000**
(*v*) Number of ton miles.	1932-33	16,978,015,000	224,526,000	17,202,541,000
	1933-34	**18,459,656,000**	**247,161,000**	**18,706,817,000**

26. Analysis of earnings.—The total earnings of all railways, including those with which the Government of India is not directly concerned, amounted to Rs. 99·58 crores, of which 61·58 crores or 61·9 per cent. were from goods traffic, Rs. 30·11 crores or 30·2 per cent. from passenger traffic and Rs. 7·89 crores or 7·9 per cent. from parcels, luggage and other miscellaneous items.

27. *Passenger earnings.*—Passenger earnings showed a decrease of 3·86 per cent., *i.e.*, from Rs. 31·32 to 30·11 crores. The following table shows the numbers of and earnings from passengers separately for each class for the four years previous to the war and for the last six years. Graphs are also inserted showing the numbers of passengers carried and of passenger miles by classes from 1923-24 :—

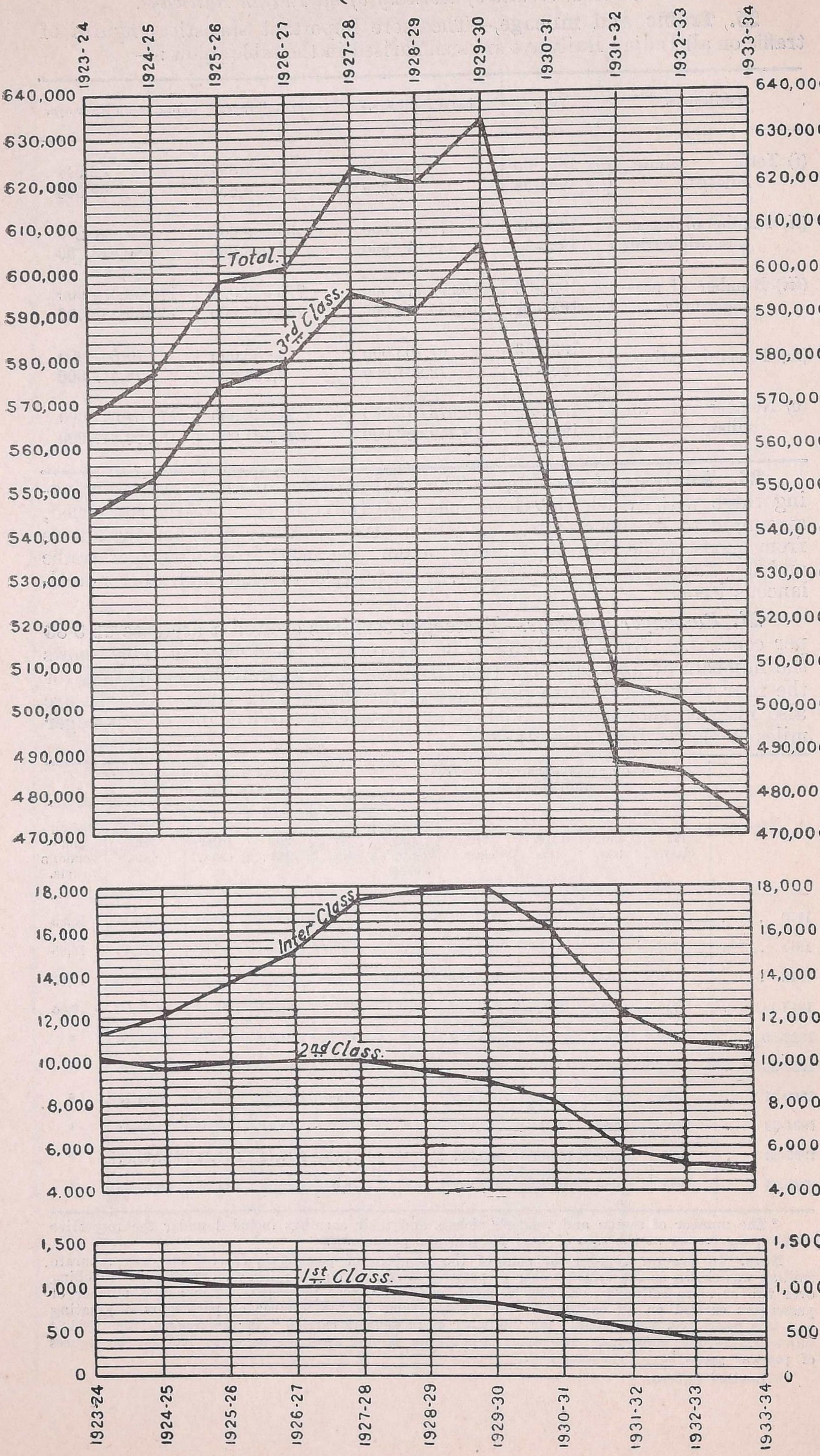
Year.	No. of passengers carried (in thousands).					Earnings from passengers (in thousands of rupees).				
	1st class.	2nd class.	Inter class.	3rd class.	Season and Vendor's tickets.	1st class.	2nd class.	Inter class.	3rd class.	Season and Vendor's tickets.
1910 . .	685	2,784	10,702	315,839	24,341	58,82	77,23	94,99	14,65,16	15,85
1911 . .	703	2,947	11,409	331,055	25,687	66,38	83,83	1,08,88	15,73,15	16,85
1912 . .	700	3,030	10,508	356,789	26,810	62,90	83,31	91,37	17,01,35	17,55
1913-14 .	715	3,253	12,000	390,412	30,114	68,94	88,70	1,03,48	18,37,03	19,36
1928-29 .	912	9,585	17,870	591,679	*	1,12,25	1,91,89	1,66,43	33,53,56	*
1929-30 .	804	9,125	17,900	606,468	*	1,04,45	1,83,56	1,58,96	34,11,36	*
1930-31 .	670	8,089	16,189	550,879	*	94,06	1,70,20	1,41,34	30,24,15	*
1931-32 .	508	5,937	12,354	487,037	*	83,34	1,53,71	1,22,98	27,75,41	*
1932-33 .	429	5,278	10,871	485,317	*	77,95	1,47,44	1,15,14	27,91,67†	*
1933-34 .	**421**	**5,050**	**10,557**	**473,585**	*	**76,07**	**1,42,24**	**1,11,54**	**26,79,09**	*

* The number of season and vendor's tickets and their earnings included under the respective classes; the former at the rate of 50 single journeys per month.

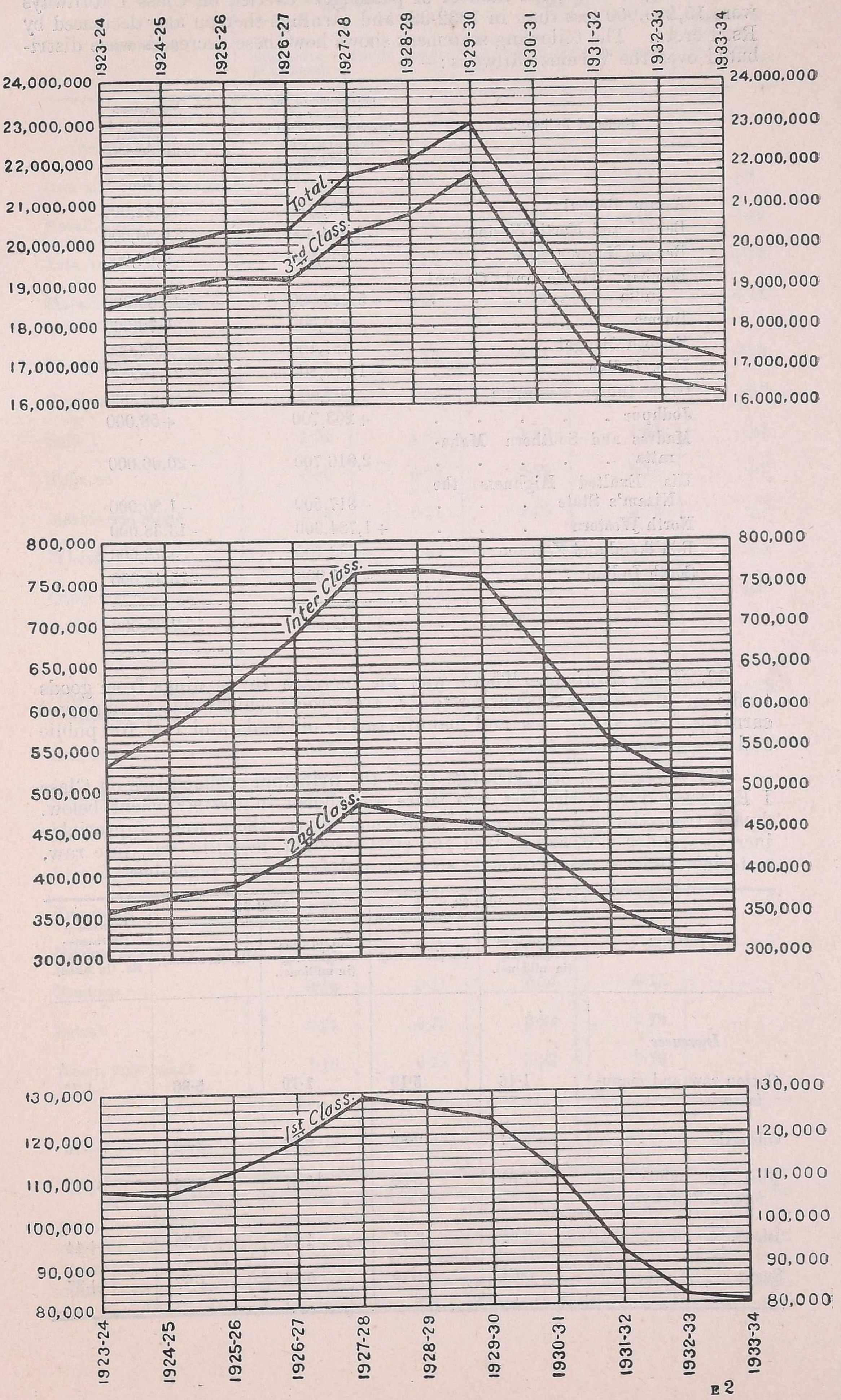
NOTE.—In pre-war reports the sum of the numbers of passengers carried on each separate railway was shown as the total number of passengers carried on all railways. Passengers travelling over two or more railways were thus counted as two or more passengers. The actual number of passengers carried on all railways is in fact the same as the number of passengers originating and this figure has been adopted for "number of passengers carried" in the reports from 1923-24 onwards. As the number of passengers originating is not available prior to 1923-24 the figures of pre-war years have been modified.

† Revised figures.

NUMBER OF PASSENGERS CARRIED ON
INDIAN RAILWAYS
(IN THOUSANDS)



PASSENGER MILES
INDIAN RAILWAYS
(IN THOUSANDS)



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During 1933-34, the number of passengers carried on Class I Railways were 15,200,000 less than in 1932-33, and earnings thereon also decreased by Rs. 1 crore. The following statement shows how these decreases were distributed over the various railways:—

Name of Railway.	Variations in the number of passengers carried as compared with 1932-33.	Variations in earnings as compared with 1932-33.
		Rs.
Assam Bengal . . .	- 267,100	- 3,24,000
Bengal and North-Western .	- 1,884,400	- 6,96,000
Bengal Nagpur . . .	- 890,600	- 9,02,000
Bombay, Baroda and Central India	- 5,226,800	- 18,65,000
Burma	- 879,300	- 6,72,000
Eastern Bengal . . .	- 487,100	- 2,93,000
East Indian	- 1,213,800	- 21,16,000
Great Indian Peninsula . .	- 2,602,900	- 14,31,000
Jodhpur	+ 203,700	+ 58,000
Madras and Southern Mahratta	- 2,916,700	- 20,06,000
His Exalted Highness the Nizam's State . . .	- 817,500	- 1,80,000
North Western . . .	+ 1,784,900	- 13,38,000
Rohilkund and Kumaon . .	+ 333,700	+ 78,000
South Indian	- 381,900	- 15,48,000
Total .	- 15,245,800	- 1,32,35,000

28. *Goods earnings.*—There was an increase in earnings from goods traffic on all railways amounting to Rs. 4·74 crores, chiefly due to improved earnings from cotton, raw and manufactured, oil seeds and fuel for public and foreign railways.

The tonnage of, and earnings from, the principal commodities on Class I Railways during the last two years are shown in the statement below. Apart from the main increases, mentioned above, there were appreciable increases under rice, sugar, iron and steel wrought, metallic ores, jute raw, materials and stores on revenue account and fruits and vegetables.

Commodity.	1932-33.		1933-34.		Increase+ Decrease— in earnings Rs. (in lakhs).
	No. of tons originating (in millions).	Rs. (in crores).	No. of tons originating (in millions).	Rs. (in crores).	
Increases.					
Cotton raw and manufactured.	1·46	5·19	**1·70**	**5·96**	+77
Oil-seeds . . .	2·04	2·88	**2·57**	**3·64**	+76
Fuel for public and foreign Railways.	17·51	8·90	**18·47**	**9·65**	+75
Rice	3·61	3·45	**4·36**	**3·89**	+44
Sugar . . .	0·64	1·30	**0·84**	**1·67**	+37

Commodity.	1932-33.		1933-34.		Increase + Decrease— in earnings Rs. (in lakhs).
	No. of tons originating (in millions).	Rs. (in crores).	No. of tons originating (in millions).	Rs. (in crores).	
Increases—concld.					
Iron and Steel, wrought	1·15	2·00	**1·30**	**2·21**	+21
Metallic ores . .	1·77	0·45	**2·24**	**0·64**	+19
Jute, raw . . .	0·81	1·12	**0·99**	**1·29**	+17
Materials and stores on revenue account.	10·63	2·36	**11·15**	**2·50**	+14
Fruits and Vegetables .	1·94	1·15	**2·71**	**1·28**	+13
Kerosene . . .	0·75	1·38	**0·79**	**1·46**	+8
Salt	1·34	1·86	**1·40**	**1·89**	+3
Tobacco . . .	0·28	0·73	**0·29**	**0·76**	+3
Marble and stone .	2·24	0·71	**2·29**	**0·73**	+2
Wheat . . .	1·46	1·84	**1·65**	**1·85**	+1
Other commodities .	7·25	9·04	**8·63**	**9·96**	+92
Decreases.					
Gram and pulses and other grains.	2·49	3·09	**2·39**	**2·91**	—18
Gur, Jagree, Molasses .	0·89	1·39	**0·82**	**1·21**	—18
Railway materials .	4·84	0·51	**4·33**	**0·44**	—7
Fodder . . .	0·87	0·54	**0·87**	**0·51**	—3
Live stock . . .	0·16	0·53	**0·16**	**0·50**	—3
Provisions . . .	1·12	2·76	**1·08**	**2·74**	—2
Military traffic . .	0·34	0·30	**0·32**	**0·29**	—1
Manures . . .	0·15	0·11	**0·14**	**0·11**	..
Petrol . . .	0·24	0·79	**0·23**	**0·79**	..
Wood, unwrought .	1·18	0·79	**1·23**	**0·79**	..
TOTAL .	67·16	55·17	**72·95**	**59·67**	+450

29. Alteration in rates and fares.—*Coaching Traffic.*—There were no general alterations in passenger fares in the year under review, but mention may be made of some of the more important of the changes made on certain railways. On the Great Indian Peninsula Railway the basis of the first class fare was reduced from 24 to 18 pies per mile over the suburban section. On the South Indian Railway the distinction in fares between mail and

passenger trains was discontinued in regard to 1st class fares and the fares reduced as follows:—

Previous fares.		*Revised fares.*	
By mail—	Per mile.		Per mile.
1-150 miles . .	24 pies.	1-150 miles . .	18 pies
151 and over . .	18 ,,	151 and over .	15 ,,
By other than mail—			
All distances .	18 ,,		

Third class passenger fares on the North Western Railway were revised as an experimental measure from 1st December 1933 as follows:—

Previous fares.		*Revised fares.*	
	Per mile.		Per mile.
1-50 miles . .	3½ pies.	1-50 miles. . .	3 pies.
51-300 ,, . .	3 ,,	51-300 ,, . .	2¾ ,,
301 and over . .	2 ,,	301 and over . .	2½ ,,

This revision, while making an appreciable reduction for distances over 50 miles, meant a slight enhancement for distances over 480 miles. On several of the principal railways, the policy of issuing cheap single and return journey tickets to meet special conditions was continued. Similarly, reduced rates for parcels traffic were quoted where necessary. To encourage the movement of fresh fruit traffic for long distances, several railways quoted special rates for wagon loads for carriage by passenger train.

Goods Traffic.—No reductions of a general nature, *i.e.*, applicable over the entire system, have been made by any railway. Such alterations in rates as have been notified, have been made in the ordinary course of day-to-day working with a view to assisting industries, encouraging the movement of traffic or meeting competition by alternative means of transport. The following are the more important of the changes thus made on individual railways:—

Rice—

(*a*) a reduction varying from 7 to 24 per cent. was made over the South Indian Railway for distances varying from 176 to 400 miles with certain exceptions.

(*b*) a reduction of about 25 per cent. from September 1933, over the Bengal Nagpur Railway for traffic to Calcutta and to stations on the East Indian, Eastern Bengal and Bengal and North-Western Railways.

Wheat—

(*a*) a reduction of about 10 to 32 per cent. from 1st May 1933, over the East Indian Railway for traffic from certain North Western Railway stations to Calcutta, so as to make the total rate from despatching stations to Calcutta Re. 1-0-4;

(*b*) a reduction of about 10 per cent., from 1st May 1933, over the East Indian Railway from stations in the United Provinces to Calcutta;

(*c*) a reduction varying from about 20 to 40 per cent. from December 1933, over the Bombay, Baroda and Central India Railway, from *viâ* Bhatinda to Bombay, so as to make the total rates from North Western Railway stations to Bombay less than the rates by the rail-cum-sea route *viâ* Karachi.

Gingelly or Til oil.—A reduction of about 10 to 30 per cent. was made from July 1933 over the North Western Railway.

30. Compensation claims for goods.—The table below shows for each Class I Railway the amounts paid on account of compensation for goods lost or damaged during the last seven years. It will be seen that the total payment for 1933-34 is substantially lower than in previous years. Incidentally, it may be remarked that in 1922-23 the amount of claims paid exceeded Rs. 120 lakhs.

*Claims for goods lost or damaged paid by Class I Railways (excluding Jodhpur Railway) during 1927-28 to 1933-34.**

Railways.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	Percentage to Goods Earnings.	
								1932-33.	1933-34.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	**Rs.**		
Assam Bengal . . .	18,006	20,973	19,096	15,976	10,303	5,600	**5,784**	0·06	**0·06**
Bengal and North-Western	59,875	45,387	56,914	26,865	25,291	25,866	**13,288**	0·13	**0·06**
Bengal Nagpur . .	65,248	1,02,726	77,437	60,128	11,878	14,255	**20,002**	0·03	**0·04**
Bombay, Baroda and Central India.	1,57,447	1,21,175	1,07,749	96,011	46,910	31,242	**22,054**	0·05	**0·03**
Burma	42,791	34,696	18,828	22,129	11,947	9,226	**6,893**	0·04	**0·03**
Eastern Bengal . .	1,71,266	1,53,676	1,08,360	83,409	47,013	43,211	**37,416**	0·15	**0·12**
East Indian . . .	2,36,368	2,27,600	1,75,501	1,10,596	90,624	72,983	**52,150**	0·06	**0·04**
Great Indian Peninsula .	1,18,333	1,45,133	1,11,392	1,15,364	1,11,645	63,868	**72,883**	0·08	**0·09**
Madras and Southern Mahratta.	80,517	95,330	1,28,478	70,612	51,557	22,641	**18,953**	0·05	**0·04**
His Exalted Highness the Nizam's State.	11,270	11,443	23,075	16,206	11,978	9,899	**4,459**	0·08	**0·03**
North Western . .	—36,383	99,446	78,321	1,26,939	65,900	59,117	**21,346**	0·07	**0·02**
Rohilkund and Kumaon .	7,347	7,204	5,775	2,611	4,574	1,220	**2,654**	0·03	**0·07**
South Indian . . .	17,691	28,350	12,992	18,826	13,732	7,320	**9,523**	0·03	**0·04**
TOTAL .	9,49,776	10,93,139	9,23,864	7,65,672	5,03,352	3,66,448	**2,87,405**	0·07	**0·05**

* These figures exclude the amount of credits afforded to home line departments for the loss of their goods.

CHAPTER III.

NEW CONSTRUCTION AND ENGINEERING WORKS.

31. Capital Expenditure.—At the end of March, 1934, the total capital at charge on all railways, including those under construction, amounted to Rs. 884·41 crores, of which Rs. 795·21 crores was capital at charge on State-owned Railways inclusive of premia paid in the purchase of Companies' lines. The remainder, Rs. 89·20 crores, represented capital raised by Indian States, Companies and District Boards.

The capital at charge of State-owned Railways is composed as follows:—

	£
Liability and debt incurred in purchase of Railways .	150,106,630
Less liability and debt cancelled by the operation of Annuities and Sinking Funds	—29,284,941
Net amount outstanding	120,821,689*

	Rs. (omitting 000)
Direct expenditure by Government	6,25,66,74
The above sterling figure converted into rupees .	1,69,39,53*
Total .	7,95,06,27
Add Provincial Railways expenditure . . .	14,61
Grand Total .	7,95,20,88

By far the greater portion of this amount, namely, Rs. 7,55,08,59,000 is Government Capital and only 1-20th or Rs. 40,12,29,000 is owned by Companies. These figures include Rs. 34·24 crores on account of capital expenditure to the end of March 1934, on strategic lines.

32. The total capital outlay on all railways during 1933-34 was Rs. 0·20 crores, of which Rs. –2·05 crores were spent on State-owned Railways. The following statement shows how this outlay of Rs. –2·05 crores was distributed between open line works, rolling stock and new lines, similar figures being given for the previous four years and for 1913-14.

Year.	Open Lines.			New lines.	Grand Total.
	Works including Stores and general charges.	Rolling-stock.	Total.		
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
1913-14	9·30	7·31	16·61	1·86	18·47
1929-30	18·12	5·55	23·67	6·51	30·18
1930-31	5·29	3·81	9·10	4·11	13·21
1931-32	1·74	2·16	3·90	2·79	6·69
1932-33	0·05	—0·55	—0·50	0·57	0·07
1933-34	**—0·45**	**—1·82**	**—2·27**	**0·22**	**—2·05**

* £8,006 converted at the rate of £1=Rs. 13⅓ and the balance of £ 120,813, 683 converted at the average rate of exchange, ruling in the year in which the liabilities were incurred.

33. The distribution of the capital outlay in 1933-34 over the different State-owned lines is shown in the summary below :—

Railways.	Open Lines.			New lines.	Grand Total.
	Works, etc.	Rolling-stock.	Total.		
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
Bengal Nagpur . . .	0·11	—0·02	0·09	0·06	0·15
Bombay, Baroda and Central India	0·01	—0·04	—0·03	..	—0·03
Eastern Bengal . . .	0·04	—0·46	—0·42	0·05	—0·37
East Indian	—0·02	—0·65	—0·67	..	—0·67
Great Indian Peninsula . .	—0·38	—0·81	—1·19	..	—1·19
Madras and Southern Mahratta .	—0·07	0·10	0·03	..	0·03
North Western . . .	—0·12	—0·08	—0·20	0·02	—0·18
South Indian	—0·05	0·13	0·08	..	0·08
Other Railways . . .	0·03	0·01	0·04	0·09	0·13
Total .	—0·45	—1·82	—2·27	0·22	—2·05

34. Lines opened during 1933-34.—11·98 miles of railways were opened to public during the year and consisted of :—

2·65 miles on the 5′ 6″ gauge.

9·33 miles on the 3′ $3\frac{3}{8}$″ gauge.

Details regarding the sections opened are given below :—

Name of line.	Gauge.	Mileage.	Owner.	Working Agency.	Date of opening.
Hatidah Ghat Branch . .	5′ 6″	2·65	State . .	East Indian Railway.	27th December, 1933.
Irrawaddy Bridge at Sagaing and approaches.	3′ $3\frac{3}{8}$″	3·82	„ . .	Burma Railways.	1st February, 1934.
Original Line (Bengal Dooars Railway).	3′ $3\frac{3}{8}$″	5·51	Unassisted company's line.	Bengal Dooars Railway.	1st June, 1933.

35. Lines sanctioned in 1933-34.—During the year under review no new line was sanctioned for construction.

36. Lines under active construction on 31st March 1934.—At the end of the financial year 1933-34 the mileage of new lines under active construction was as follows :—

	Miles.
3′ $3\frac{3}{8}$″ gauge	50·37
Total .	50·37

The lines under active construction are given in the table below, which also shows the construction agencies and the progress reached :—

Name of line.	Gauge.	Mileage actually under construction.	Working Agency.	* Progress of work (Proportion completed on 31st March 1934).
1. Prachi Road-Una . . .	3′ 3⅜″	27·93	Junagad Durbar .	·40
2. Khambli Ghat-Phulad (Mauli-Sursinghjika Gudha).	3′ 3⅜″	13·11	Mewar Durbar .	·40
3. Arasalu-Anantapur . . .	3′ 3⅜″	9·33	Mysore Railway .	·39
Total .	..	50·37		

37. Surveys.—Although no new lines were sanctioned for construction during the year under review, sanction was accorded to certain surveys being carried out, as for the proposed Agastiyampalli-point Calimere extension, and for a realignment of the Shoranur-Cochin Railway between Idappalli and Ernakulam, with a view to fixing the location of a new passenger station for Ernakulam.

The South Indian Railway Administration was also authorised to review the traffic prospects and to revise the project estimates of the new lines proposed from Karaikudi to Madura *viâ* Melur, and from Bodinayakanur to Gudalur.

On the Great Indian Peninsula Railway, the Hiwarkhed-Akot-Akola-Basin and the Khamgaon-Chickli projects which appeared to show fair prospects of a good return, were similarly resurveyed.

Railways in Sind.—The need for adequate facilities in Sind to transport the increased volume of agricultural produce available from the large tracts of land irrigated by the Lloyd Barrage project came to the fore during the year under review. The Government of India, therefore, appointed an officer to examine and report on the general question of "Communications in Sind" with special reference to the Barrage Area. A Railway Officer was also associated with him so as to ensure a proper co-ordination of road and rail construction and the development of feeder roads. Their report is awaited.

38. The following is a brief account of the more important lines, which were under construction during the year :—

(i) *Arasalu-Anantapur section of the Shimoga-Anantapur Railway.*—The construction of this line has been completed and it is expected to be opened for all kinds of traffic by the end of April 1934.

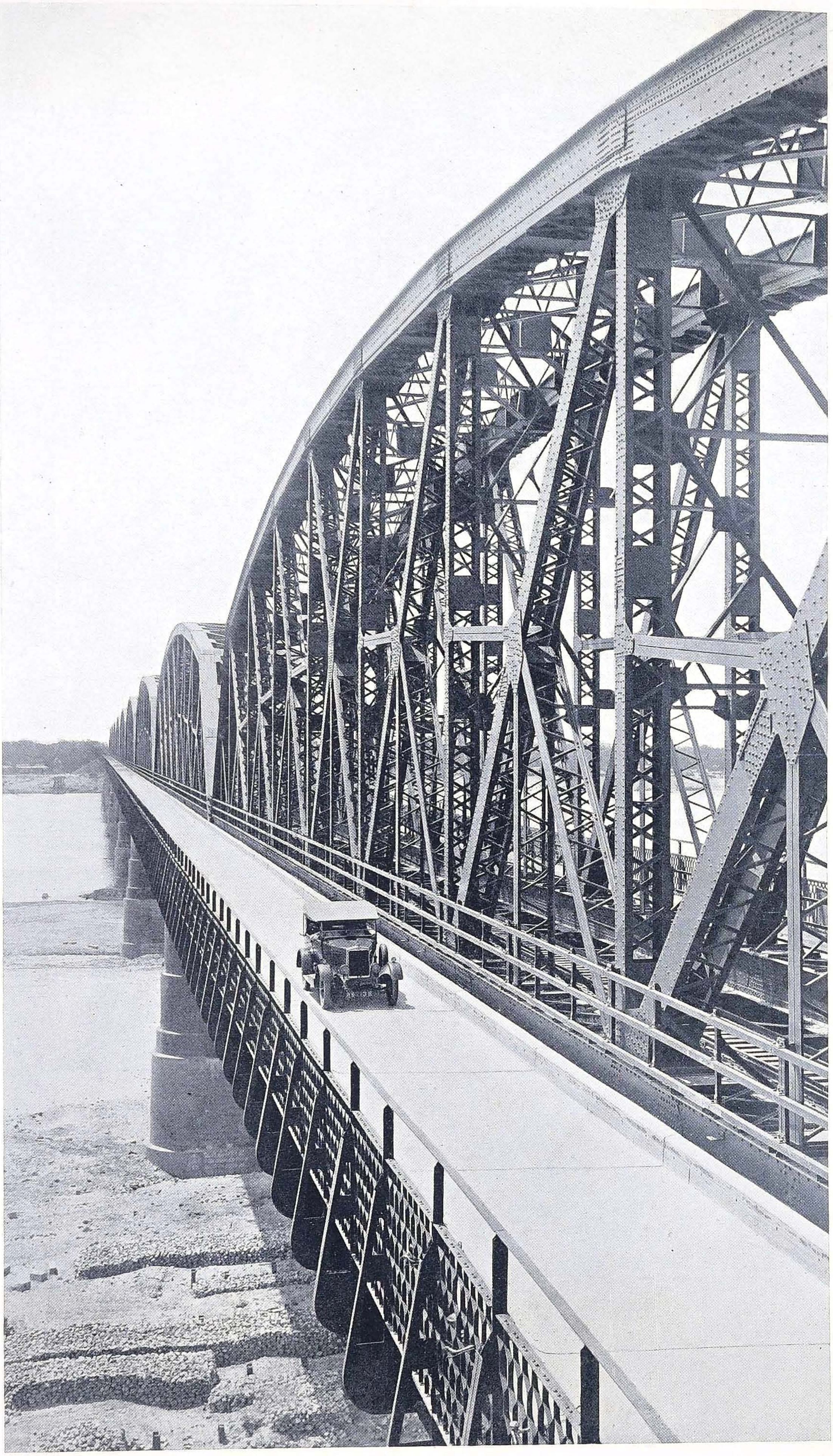
(ii) *Prachi Road-Una section of the Veraval-Una Railway.*—The construction of this metre gauge section which is 27·93 miles long, was held up pending settlement of the arrangements in connection with the acquisition of land. The land for the railway was handed over by the Baroda State in December 1933, and active work on the construction of the line was taken in hand during that month. The first section of the railway from Prachi Road to Jamwala (7·05 miles) is nearly complete and is expected to be opened for public traffic in April 1934. Work has also been started on the remaining portion from Jamwala to Una.

The construction of the Talala-Visavadar section of the Talala-Dhari extension has been held up pending the completion of the Prachi Road-Una section of the Veraval-Una Railway.

* ·30 signifies that $\frac{3}{10}$th of the work has been done.

·50 signifies that half the work has been done.

1·00 signifies completion of the work.



Ava Bridge—View of roadway on down stream side.

39. Important New Works.—(i) *Vizagapatam Harbour.*—Good progress was made in the Vizagapatam Harbour Construction work during the year. The suction dredger, "Vizagapatam" was in commission throughout the year and dredging was done at various places. Dredging was in progress from April to the middle of June in the outer channel and at intervals during the south west monsoon. A sufficiently wide and deep channel to warrant opening of the Harbour to shipping was excavated and maintained. The dragline excavator worked along the Southern Lighter Channel. The Combined Dipper Dredger and Rock Breaker "Waltair" and the crane barges "Mudlark" and "Gamine" were employed during the year on the removal of soft and hard material and also on rock breaking and dredging in certain areas. The tugs "Dolphin" and "Grampus", the water boat and the anchor boat were in attendance on dredging plant. The tugs were also employed in towing barges and cargo lighters till the time of opening the Harbour to ocean going steamers. Launch "Madge" and the combined water and anchor barge "Julia" were in commission all the period. The dumping of stone in and around the two ships forming the shell of the Breakwater was carried out at greater speed than expected and by the end of September 175,000 tons had been deposited. The Breakwater proved very effective in its dual purpose of causing the deposit of drift sand in the sand trap area, and giving sheltered water there and in the channel for dredging. The inner channel had for the most part been dredged to the depth required previously, but siltation had taken place over certain areas which required improvement. The necessary work was done before October 1933. The Port was opened to ships of 26 ft. draft on the 7th October 1933, and His Excellency the Viceroy performed the official opening ceremony on the 19th December 1933. After ships entered, the necessity for improvements both in the Turning Basin and at the entrance to the Turning Basin became evident and these were executed. The outer channel was also improved at the outer limits. The Berth position at present is that there are 3 Quay Berths and 4 Mooring Berths available for shipping. After opening of the Harbour, the tugs "Dolphin", "Grampus" and "Sir Guthrie Russell" were used in connection with the pilotage of vessels entering and leaving the Harbour. Measures for the prevention of waste of filtered municipal water by the adoption of a decentralised system of storage were continued during the year under review, and a considerable saving has been effected in the consumption of municipal water. The construction of the Power House and the sub-station buildings were also completed. The Generating Station was brought into use on the 16th February 1934.

(ii) *New Locomotive Yard at Salt Cotaurs, Madras and Southern Mahratta Railway.*—In connection with the general scheme for remodelling railway facilities in and around Madras, it was considered essential that the existing out of date engine shed at Rayapuram should be shifted to a new site at the old Salt depot at Salt Cotaurs, and the opportunity taken to provide an up to date shed equipped with modern facilities. The work was accordingly sanctioned at a cost of Rs. 22 lakhs. It is, however, anticipated that the expenditure will very nearly pay for itself by obviating the present light running of engines between Central Station and Rayapuram. There will also be other savings amounting to a considerable sum.

(iii) *Ava Bridge at Sagaing.*—It was mentioned in last year's report that the bridge over the Irrawaddy at Sagaing was likely to be completed by the end of November or early in December 1933. The bridge was opened for public traffic with effect from 1st February 1934, but the opening ceremony was performed by His Excellency the Governor of Burma on the 2nd January 1934. The length of the bridge proper from abutment face to abutment face is 3,948 feet and at the deepest part of the river the railway track is 102 feet above the river bed. Including its approaches the bridge is 3·83 miles long. The bridge connects the two main sections of the Burma Railways, hitherto linked only by a ferry service. It also carries the main road from Mandalay to Shwebo.

40. Open Line Improvements.—(i) *Chambal Bridge.*—The old Great Indian Peninsula Railway bridge over the Chambal River was built in 1880, and the girders, which were designed to carry the train loads then in force, were below strength for the heaviest standard of loading now in force on broad gauge railways in India. The reconstruction of the superstructure of the bridge could therefore no longer be delayed and an estimate amounting to Rs. 16,69,668 of the cost of the work was sanctioned in April 1933.

(ii) *Sutlej River Bridge at Gidarpindi.*—Several large embayments which had formed in the vicinity of this bridge had extended to a short distance of and had caused erosion to the approach banks, seriously endangering the entire bridge structure and its approaches. As this state of affairs was extremely precarious and liable to expose the bridge to disaster during abnormal floods, it was necessary to extend the upstream guide bunds urgently by 1,350 feet and an estimate amounting to Rs. 5·29 lakhs was accordingly sanctioned for the purpose in time to have the work completed before the next flood season.

(iii) *Bridge Strengthening Programme.*—A description of the Jumna Bridge at Delhi was given in last year's report. During the current year, good progress was maintained and the work was completed by the end of June 1933.

On the Bengal Nagpur Railway too it was found necessary to carry out an extensive scheme of bridge strengthening on the broad gauge sections, notably on the east coast section, the Nagpur line and the Katni Branch in order to make them fit for modern heavy loads. The total cost of the work is estimated at Rs. 27·94 lakhs.

Other large bridges which had similarly to be brought up to the standard for modern heavy engines were the East Indian Railway bridge over the Adjai river and the Great Indian Peninsula Railway, Sindh bridge on the Jhansi-Agra section, and estimates amounting to Rs. 7·14 lakhs and 5·06 lakhs respectively were accordingly sanctioned.

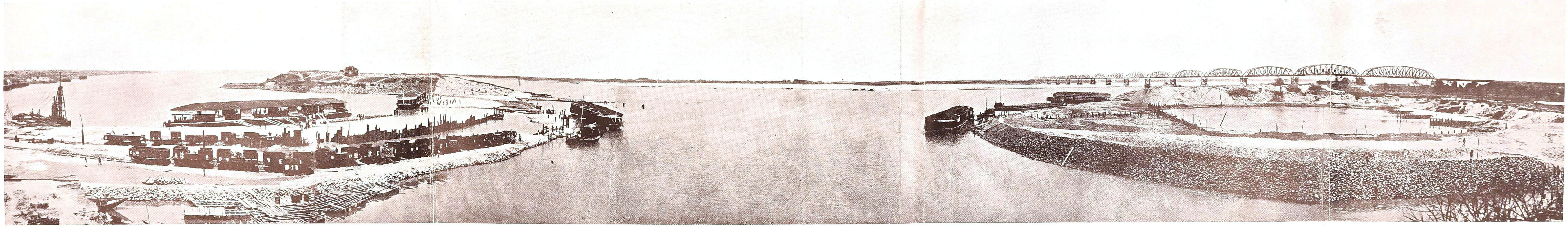
In the case of the Adjai bridge the actual work to be done consists of the construction of a new bridge for the up line and the shifting of the down line to the centre of the existing piers after suitably strengthening them.

(iv) *Floodways for the spill of the Sone River near Koilwar.*—As the Sone river is liable to heavy floods which breach its banks in the vicinity of Koilwar and as the waterway at the existing bridge at Koilwar is insufficient to cope with the entire discharge, it was decided in consultation with the Government of Bihar and Orissa to provide additional waterway to the extent of 660 feet in the East approach bank of the Bridge and an estimate amounting to Rs. 5·43 lakhs was accordingly sanctioned for the work in November 1933.

(v) *Permanent Way Renewal.*—Of the permanent way renewal works sanctioned during the year, special mention may be made of re-sleepering 39·5 miles of wooden sleepers track with transverse steel trough sleepers between Shamgarh and Ramganj Mandi on the Bombay, Baroda and Central India Railway. This forms the second section of the re-sleepering programme on the 123 mile section of the main line north of Rutlam, which was mentioned in the Administration Report for 1931-32, leaving a balance of 38 miles still to be completed. On the Great Indian Peninsula Railway, a programme of replacing wood sleepers with cast iron plate sleepers on about 76 miles in the section between Jubbulpore to Naini was similarly sanctioned. The order for the necessary cast iron sleepers will be placed in India.

(vi) *Realignment between Bahawalpur and Samasatta.*—On the Lahore-Karachi main line between the stations Bahawalpur and Samasatta and on the south side of the Empress Bridge at Adamwahan, the railway and the river Sutlej run parallel and close to each other for over 6 miles. On this length the railway is being continually threatened by the river and has been a source of anxiety since 1913. As efforts to train the river properly have not proved successful, it was decided to abandon the present alignment and

EASTERN BENGAL RAILWAY.



Hardinge Bridge—View of breached right guide bank and emergency works.

realign the railway, so as to place it well out of reach of the river. The work is expected to cost about Rs. 3·56 lakhs.

(vii) *Shoranur-Cochin Railway Conversion, South Indian Railway.*—Mention was made of this work in the report for 1932-33. During the year under review further progress was made and about 80 per cent. of the work was completed. The line is expected to be ready for opening by about the end of 1934.

(viii) *Hubli Station Yard Remodelling, Madras and Southern Mahratta Railway.*—The existing station at Hubli is inadequate to meet the traffic passing through it which has far outgrown the present facilities. It is, therefore, necessary to remodel the station so as to provide better facilities for both passengers and goods and also a new locomotive yard and engine shed equipped with a suitable workshop and machinery. The work was accordingly sanctioned at a cost of Rs. 16½ lakhs.

41. Hardinge Bridge.—The vagaries of the river Ganges in the vicinity of the Hardinge Bridge have attracted a great deal of attention during the past few years. A definite attempt by the river to return to an old channel, where it flowed in 1780 and 1868, developed rapidly during the years 1931 and 1932. As a result certain protection works which consisted of the provision of a new bund and the extension of others were undertaken in 1932 at a total cost of Rs. 30·16 lakhs with a view to keeping the river to its old course, and completed in May 1933. These additional works came into action early during the flood season of 1933 but towards the end of September and the beginning of October, an attack of unprecedented severity developed on the Right Guide Bank near the bridge and eventually caused a breach of that Bank for 300 feet which ultimately increased to 1,600 feet. All efforts to arrest the breach were fruitless owing to the depth and velocity of the river, but fortunately it was the end of the flood season and the bridge was therefore free from danger during the ensuing low water months.

Owing to the importance of maintaining this expensive link of communication, it was decided to invite Sir Robert Gales, a representative of the Consulting Engineers to the Government of India and the original builder of the bridge, to come to Paksey, and to advise after personal inspection on the best expedients that should be adopted for the protection of the bridge during the floods of 1934. The protection scheme prepared by Sir Robert Gales involves several works costing roughly Rs. 116 lakhs. Work was put in hand early in January 1934 and is in progress. Meanwhile, with a view to maintaining traffic over this route in the event of the possible failure of the bridge in spite of the additional works undertaken to secure it, it was necessary to authorise the purchase of a wagon ferry and to put in hand certain preliminary works required for a ferry service, at a total cost of Rs. 5·80 lakhs.

CHAPTER IV.

TRANSPORTATION AND WORKING.

42. Statistics.—A convenient method of showing the business handled by railways is to indicate it in terms of passenger miles for passenger traffic and net ton miles for goods traffic. These terms mean that the total number of passengers and tons of goods carried are multiplied by the number of miles over which they are moved. The following table shows the amount of traffic thus expressed carried on Class I Railways in 1933-34 as compared with the previous two years :—

Particulars.	In thousands.			
	1931-32.	1932-33.	**1933-34.**	Percentage of increase (+) or decrease (−) compared with 1932-33.
Passenger miles	17,339,974	16,890,772	**16,384,713**	−3·00
Net ton miles	17,734,697	16,632,652	**18,043,937**	+8·48

It will be seen that there has been a decrease in passenger miles whereas net ton miles record an appreciable increase during the year under review compared with the previous two years. The figures of net ton miles, which do not include materials and stores carried in departmental trains, *i.e.*, trains run by railways for their own purposes, represent about 97 per cent. of the total traffic carried on Indian Railways.

Service performed.—The following table shows the number of train miles run in carrying the above mentioned traffic. Passenger train miles show a decrease of 0·05 per cent. on the broad gauge and 0·52 per cent. on the metre gauge and an increase of 0·96 per cent. on the narrow gauge. The figures of goods train miles, on the other hand, show an increase of 5·34 per cent. on the broad gauge and 4·01 per cent. on the metre gauge and a decrease of 0·70 per cent. on the narrow gauge. Full details of train and engine miles of Class I Railways will be found in statement No. 17 of Volume II and that of Class II and III Railways in statement No. 37 :—

(Figures are in thousands.)

Particulars.	Class I Railways, Broad Gauge.				Class I Railways, Metre Gauge.				Class I Railways, Narrow Gauge.			
	1931-32.	1932-33.	**1933-34.**	Percentage of variations with 1932-33.	1931-32.	1932-33.	**1933-34.**	Percentage of variations with 1932-33.	1931-32.	1932-33.	**1933-34.**	Percentage of variations with 1932-33.
Passenger (including proportion of mixed) train miles.*	63,139	62,498	**62,468**	−0·05	30,444	30,354	**30,196**	−0·52	2,374	2,301	**2,323**	+0·96
Goods (including proportion of mixed) train miles.*	37,290	35,799	**37,712**	+5·34	18,920	18,217	**18,947**	+4·01	1,613	1,559	**1,548**	−0·70

* Includes mileage of electric locomotive trains.

In addition to the train services mentioned above a large amount of directly unproductive or " other " engine miles, *viz.*, shunting, light and

assisting, were run. This mileage was equivalent to 17 per cent. of the total engine miles including departmental. The total departmental train and engine mileage, which is also unproductive, amounted to 9,029 thousand miles, or about 5 per cent. of the total engine miles of the unproductive mileage, the largest portion being on account of shunting miles. The following table shows the proportion of shunting engine miles per 100 train miles for the last three years on the broad and metre gauges :—

Particulars.	Broad Gauge.				Metre Gauge.			
	1931-32.	1932-33	**1933-34.**	Percentage of variations with 1932-33.	1931-32.	1932-33.	**1933-34.**	Percentage of variations with 1932-33.
Shunting miles per 100 train miles (Passenger and proportion of mixed).	5·54	5·51	**5·37**	—2·54	5·04	5·35	**5·43**	+1·50
Shunting miles per 100 train miles (Goods and proportion of mixed).	36·4	37·0	**35·8**	—3·24	31·7	31·6	**31·9**	+0·95

Goods trains.—The average through speed of goods trains which is the average speed worked out on the total time taken by a train from start to finish of its run inclusive of stops *en route* shows an improvement, being 11·7 miles per train engine hour on the broad gauge and 11·0 on the metre gauge as compared with 11·5 and 10·8, respectively, for the previous year. The average net load of a goods train increased from 380 to 391 tons on the broad gauge and from 160 to 168 tons on the metre gauge. The final index of goods train working, *viz.*, " net ton miles per engine hour " increased from 1,827 in the previous year to 1,927 on the broad gauge and from 836 to 877 on the metre gauge.

Engines.—The work done by engines is expressed by the figure " engine miles per engine per day ". Based on the number of engines on the line, this figure shows an increase on the broad gauge from 60 to 61 and on the metre gauge from 60 to 62. Based on the number of engines in use, the number of engine miles per engine per day increased from 105 to 107 on the broad gauge and from 99 to 100 on the metre gauge. The percentage of engines under or awaiting repairs in mechanical and transportation workshops decreased from 17·6 to 16·9 on the broad gauge, while there was a slight increase on the metre gauge, *viz.*, from 13·7 to 14·3.

43. Wagon Usage.—The extent to which the available wagon stock was utilised may be expressed either in the average number of miles run per wagon per day, both loaded and empty wagons being taken into account, or in the average number of net ton miles performed by a wagon per day. It is to be noted, however, that both these statistical figures indicate the work done by the total number of wagons on railways and not by the wagons actually in use as empty wagons are also taken into account even if stabled in sidings when in excess of traffic requirements. The following table shows these two results for 1933-34 compared with the previous year :—

	Wagon miles per wagon day.		Net ton miles per wagon day.	
	1932-33.	**1933-34.**	1932-33.	**1933-34.**
Broad gauge	30·5	**32·5**	261	**283**
Metre gauge	24·0	**26·5**	120	**134**

The average percentage of unserviceable wagons in mechanical and transportation workshops and sick lines to the total number of goods wagons fell from 12·87 to 10·53 on the broad gauge and from 2·93 to 2·46 on the metre gauge.

Passenger vehicles.—Similar figures with regard to repairs of passenger vehicles show an increase from 11·21 to 11·25 on the broad gauge and from 8·41 to 8·43 on the metre gauge.

Turning to individual railways, some of the principal features of the year's transportation working are as follows :—

Bengal Nagpur Railway.—The net ton miles per engine hour advanced from 1,590 in 1932-33 to 1,782 in 1933-34. The average load of a train increased from 42·0 wagons in 1932-33 to 43·9 in 1933-34 : the average number of loaded wagons per train also increasing from 27·1 to 28·8. The net load in tons per goods train consequently improved from 370 to 403.

Bombay, Baroda and Central India Railway.—The net ton miles per engine hour advanced from 1,793 to 2,061 on the broad gauge and from 1,045 to 1,124 on the metre gauge. The wagon miles per wagon day advanced from 27·9 to 30·8 on the broad gauge and from 28·0 to 34·1 on the metre gauge.

Eastern Bengal Railway.—The shunting miles per 100 passenger train miles fell from 8·95 to 8·25 on the broad gauge and from 9·17 to 8·77 on the metre gauge and the figures per 100 goods train miles were appreciably reduced on the broad gauge, *viz.*, from 74·5 to 65·6 while there was a slight increase in the figures on the metre gauge, *viz.*, from 39·4 to 39·7. The net ton miles per wagon day advanced from 142 to 161 on the broad gauge and from 81 to 88 on the metre gauge.

East Indian Railway.—The net ton miles per engine hour increased from 2,229 to 2,333. The net ton miles per (goods) locomotive day on the line as well as in use increased from 13,624 and 25,672 to 15,147 and 27,971, respectively.

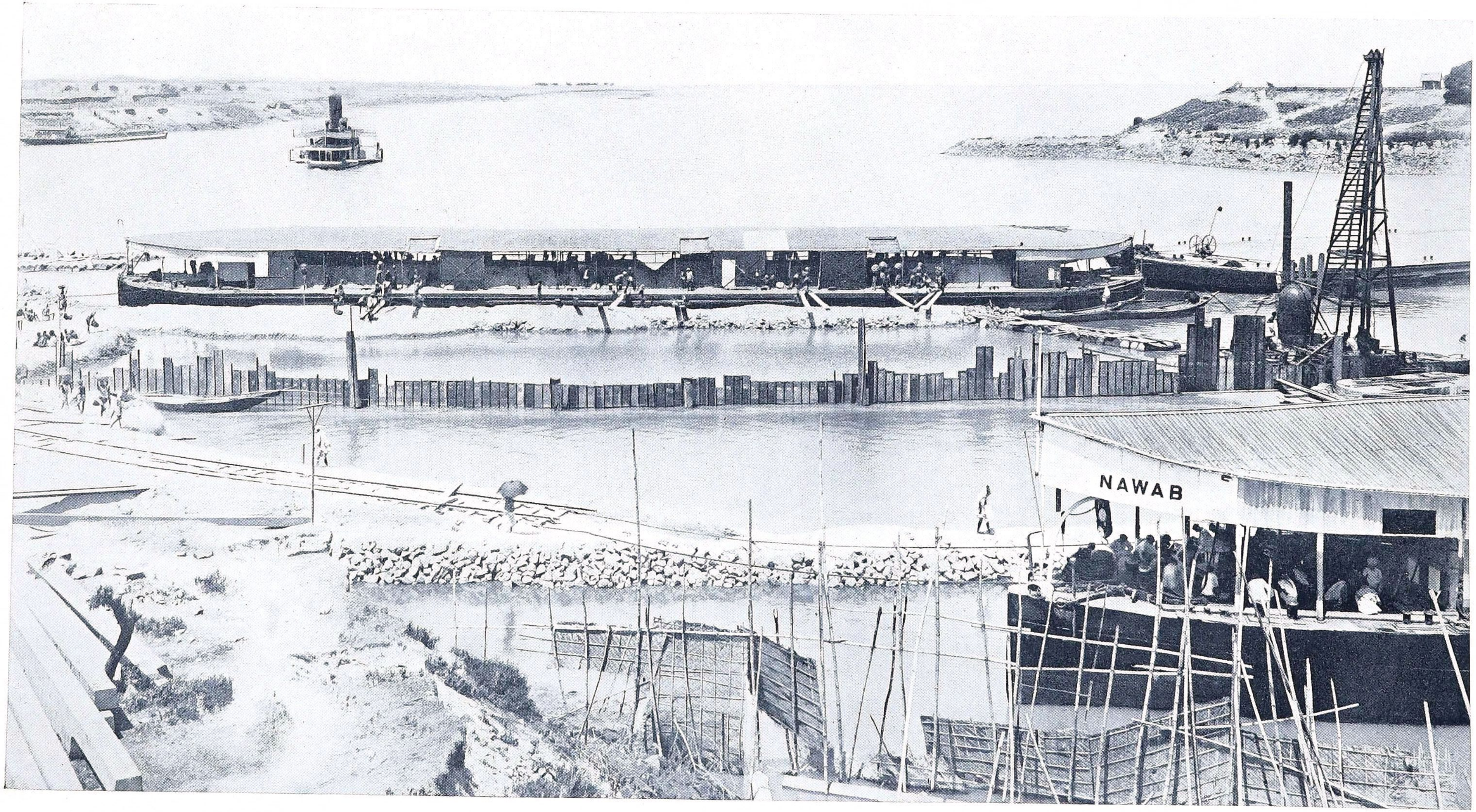
Great Indian Peninsula Railway.—The net ton miles per wagon day increased from 343 to 374 and the net ton miles per engine hour advanced from 1,927 to 2,071.

Madras and Southern Mahratta Railway.—The shunting miles per 100 passenger train miles on the broad gauge rose from 3·06 to 3·23 while the figures per 100 goods train miles were appreciably reduced, *viz.*, from 37·3 to 32·8. The net ton miles per engine hour advanced from 1,534 to 1,679 on the broad gauge and from 767 to 802 on the metre gauge.

South Indian Railway.—The net train load rose from 228 tons in 1932-33 to 236 in 1933-34 on the broad gauge and from 145 to 153 tons and 110 to 141 tons on the metre gauge sections worked by steam and electric locomotives respectively. The following table shows that there was an improvement in the net ton miles per engine hour :—

	1932-33.	1933-34.
(*a*) Including Departmental—		
Broad gauge	844	**921**
Metre gauge—		
Steam	651	**693**
Electric	596	**780**
(*b*) Excluding Departmental—		
Broad gauge	1,046	**1,102**
Metre gauge—		
Steam	793	**837**
Electric	597	**780**

44. Fuel Economy.—The results obtained from the Fuel Economy campaign during 1933-34 are illustrated in graphical form. The results are on the whole satisfactory.

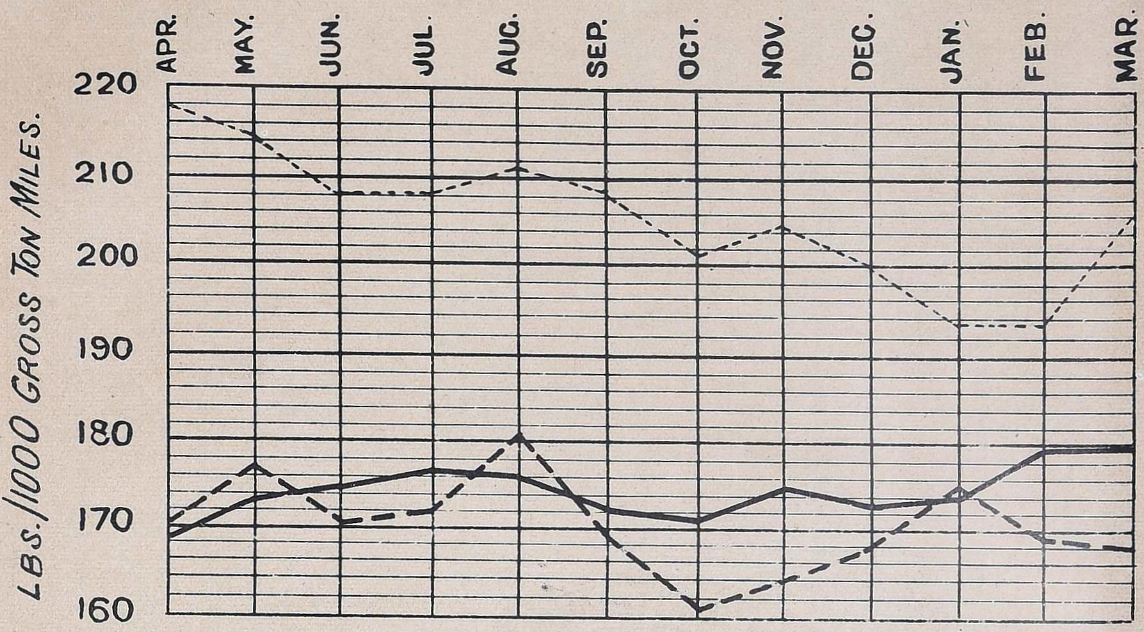


Hardinge Bridge—Construction of mole showing sheet piling seal.

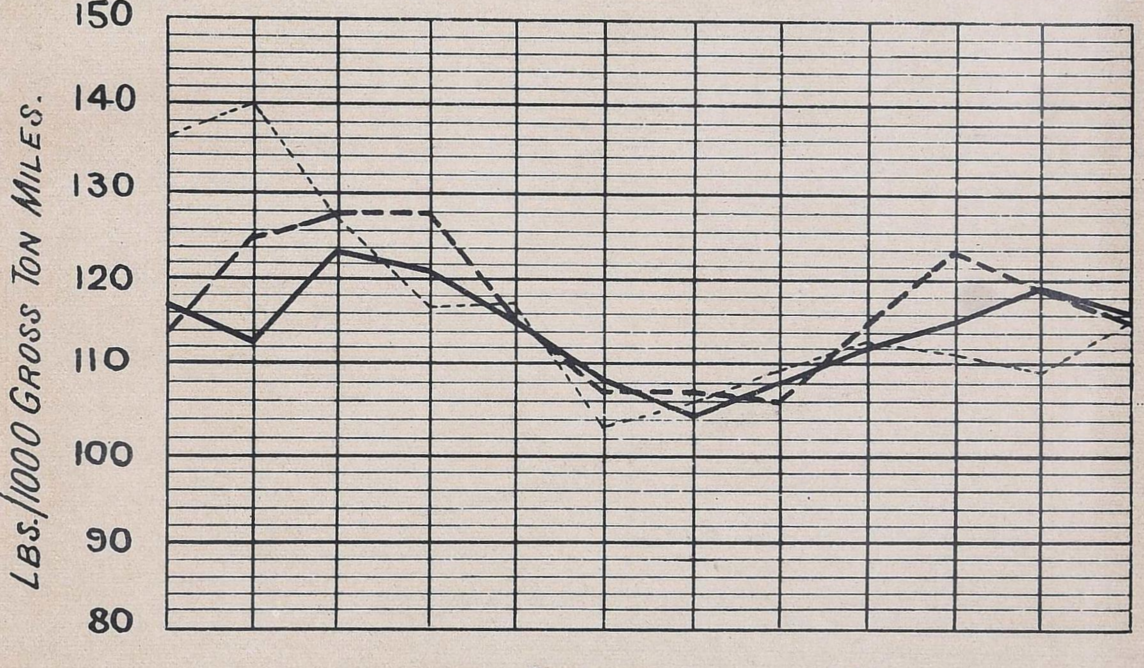
COAL CONSUMPTION.
EASTERN BENGAL RAILWAY.
5'-6" GAUGE.

1926-27 ....
1932-33 — — — — —
1933-34 ————————

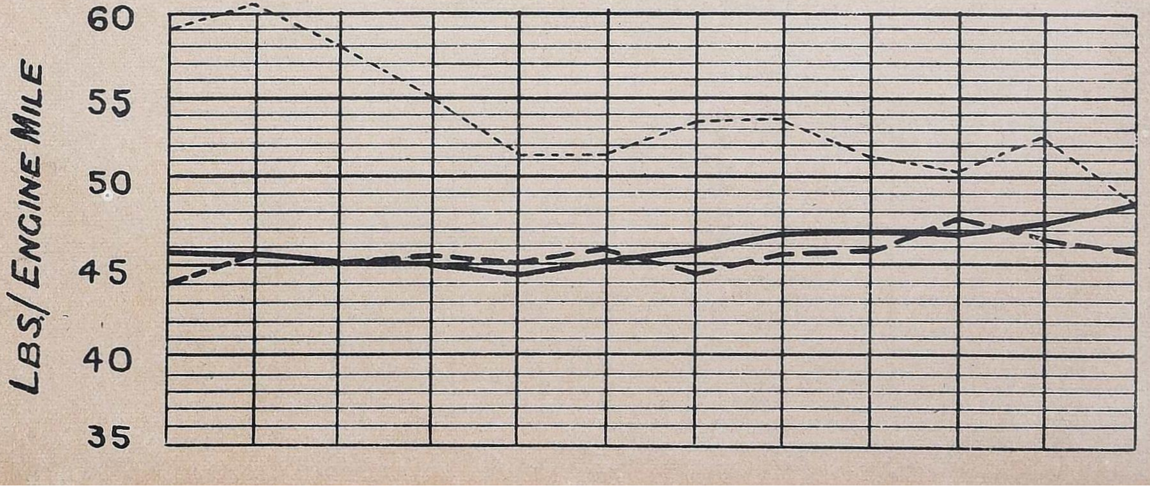
PASSENGER SERVICES (INCLUDING PROPORTION OF MIXED SERVICES).



GOODS SERVICES (INCLUDING PROPORTION OF MIXED SERVICES).



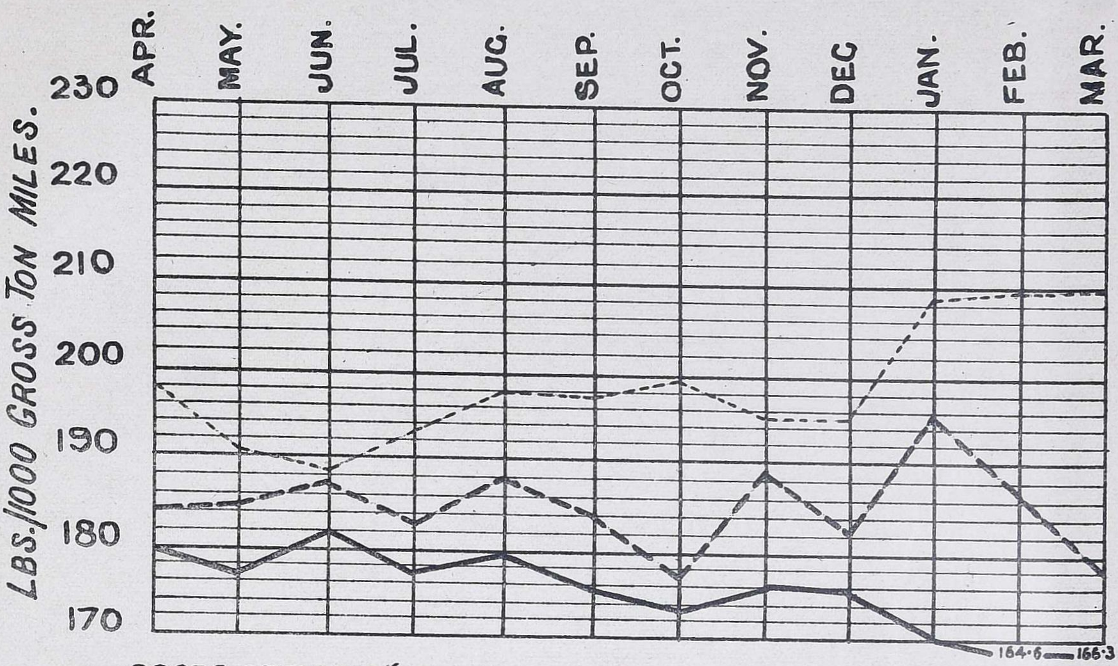
SHUNTING (INCLUDING SIDINGS)



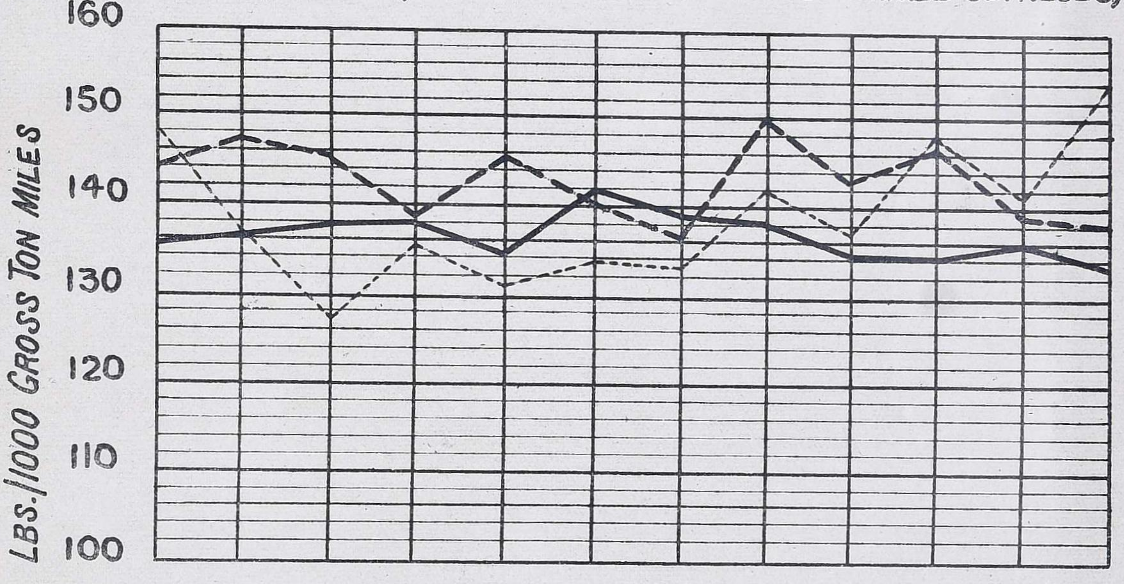
COAL CONSUMPTION.
EASTERN BENGAL RAILWAY
3'-3⅜" GAUGE

1926-27 ....
1932-33 - - - - - - - -
1933-34 ————————

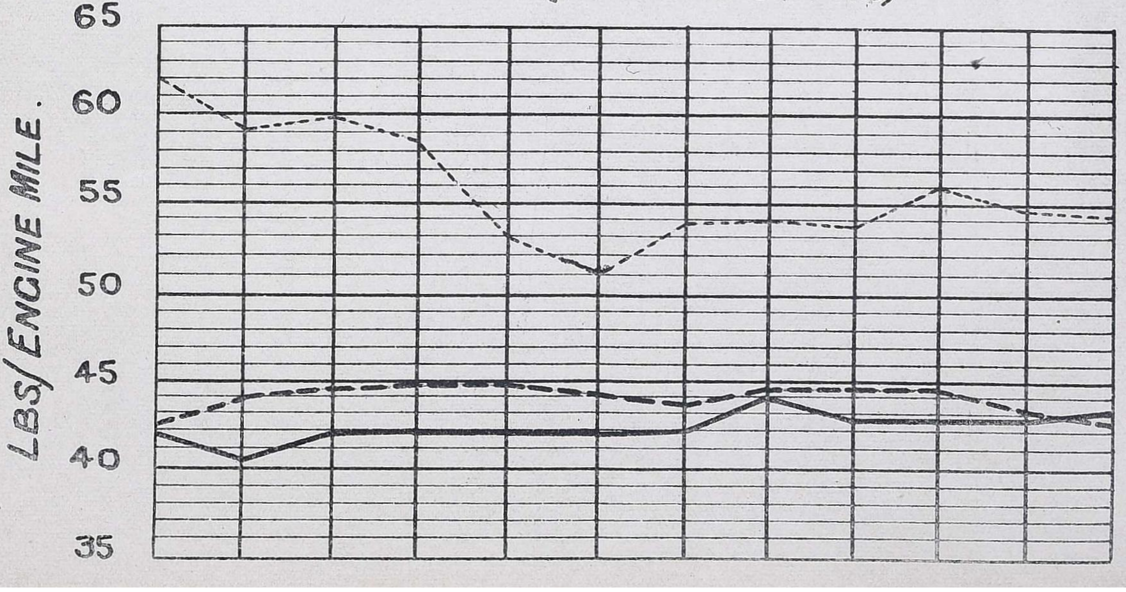
PASSENGER SERVICES (INCLUDING PROPORTION OF MIXED SERVICES)



GOODS SERVICES (INCLUDING PROPORTION OF MIXED SERVICES).



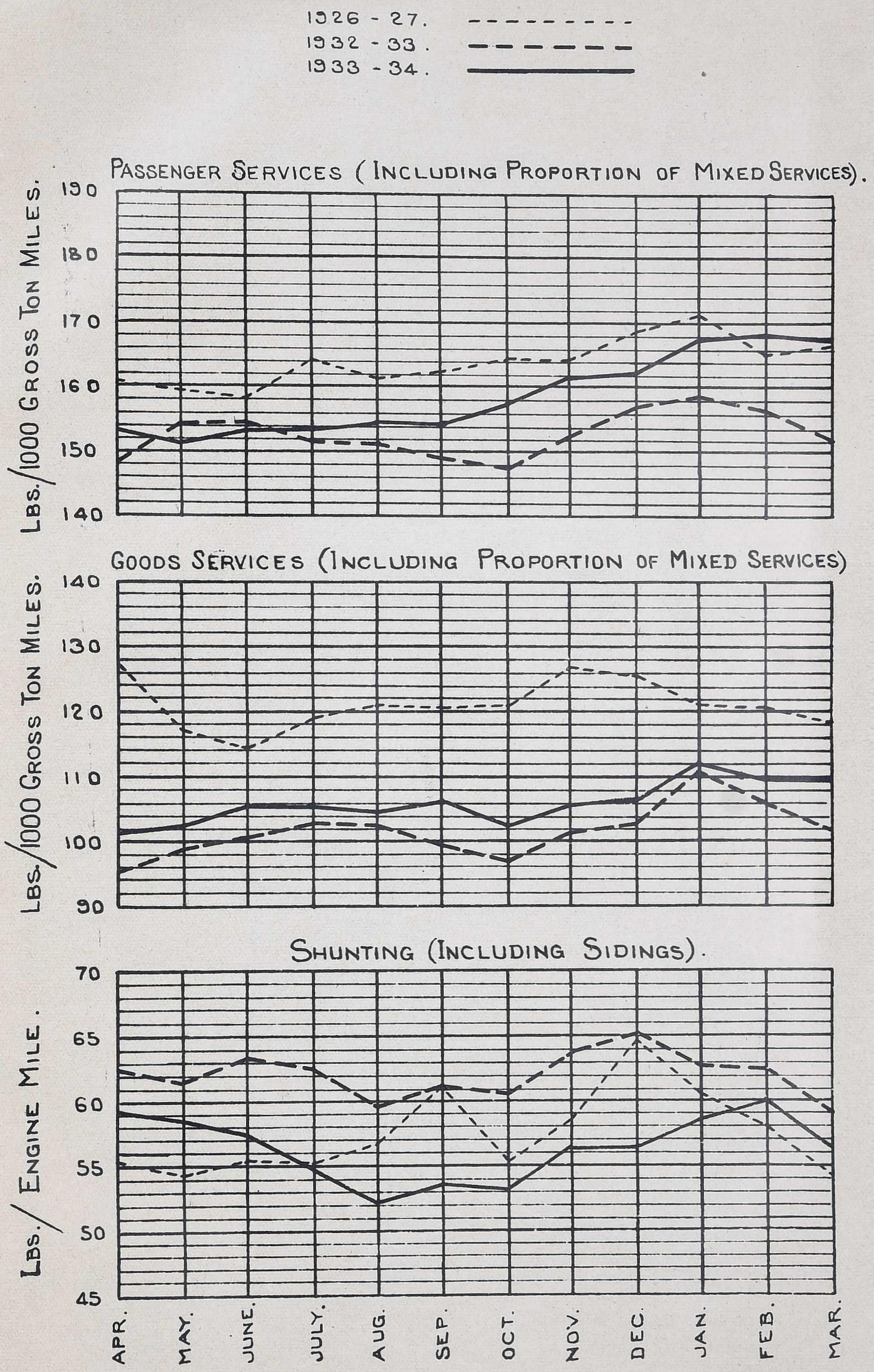
SHUNTING (INCLUDING SIDINGS)



COAL CONSUMPTION.

EAST INDIAN RAILWAY.

5'-6" GAUGE.



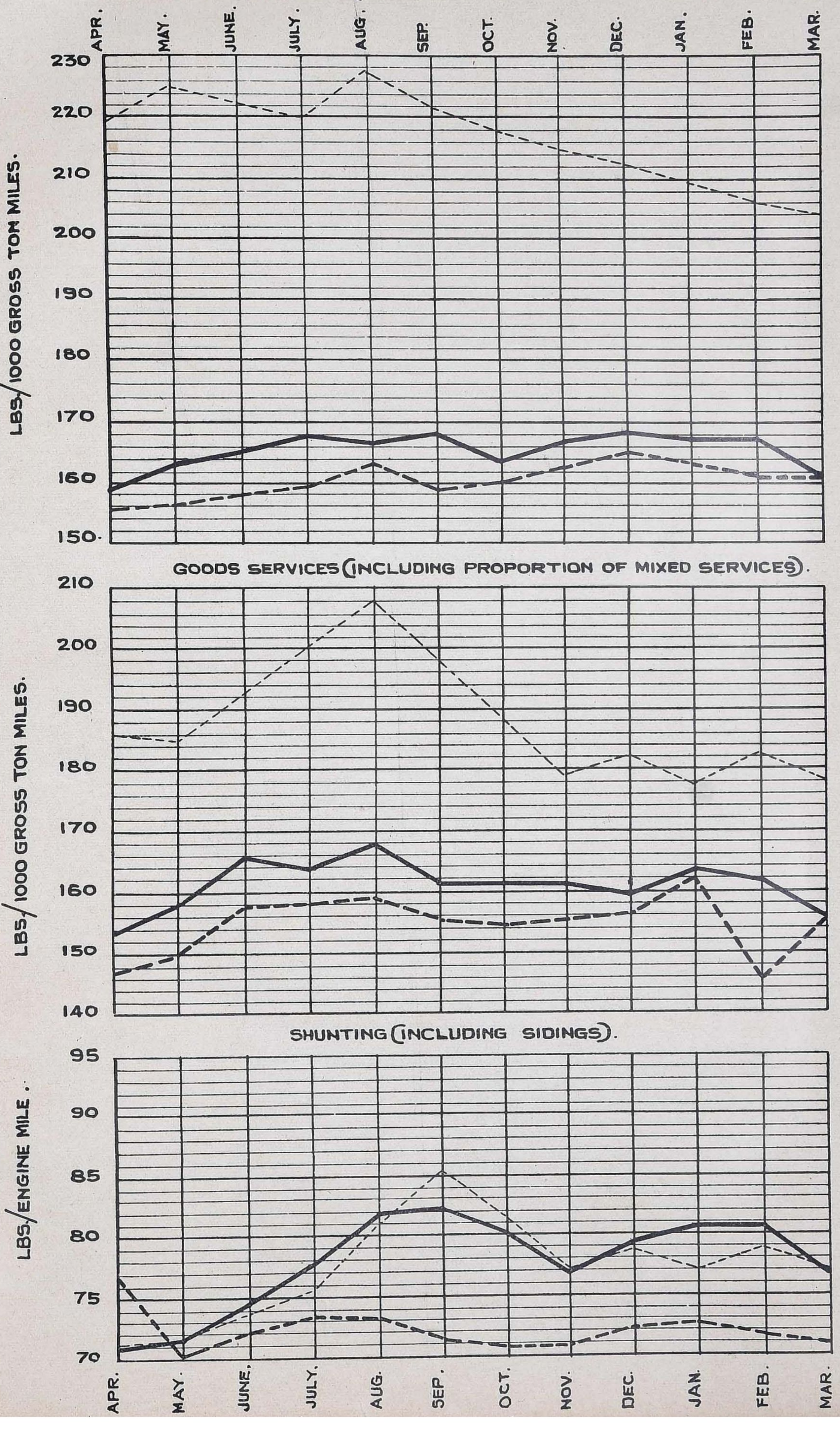
COAL CONSUMPTION.

GREAT INDIAN PENINSULA RAILWAY.

5' 6" GAUGE.

1926-27 - - - - - - 1932-33 — — — — — 1933-34. ————————

PASSENGER SERVICES. (INCLUDING PROPORTION OF MIXED SERVICES)



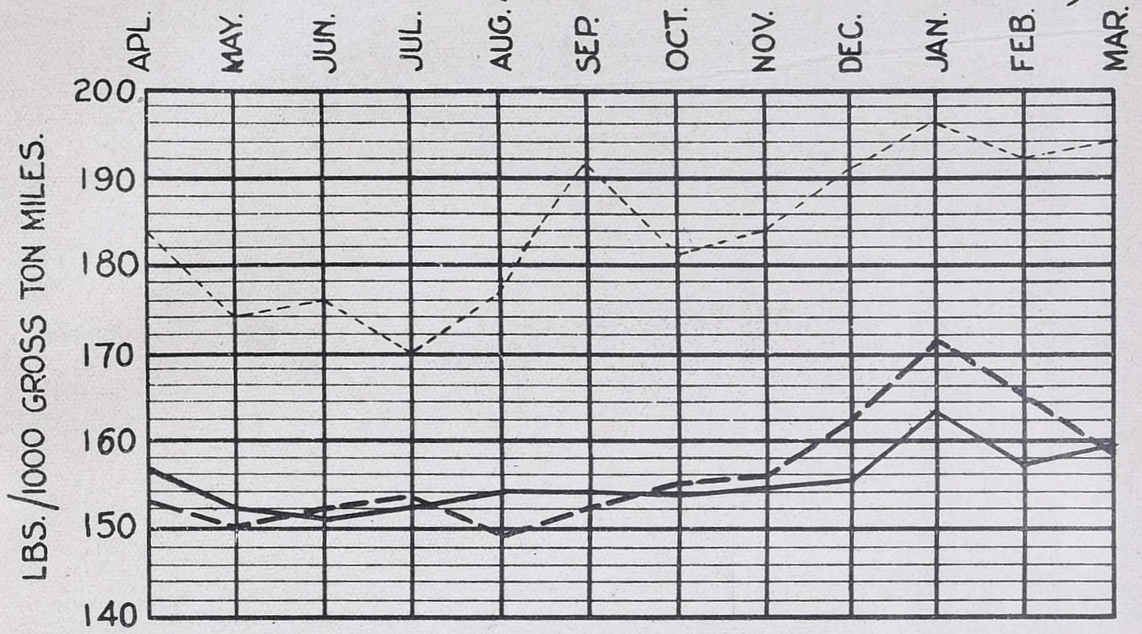
COAL CONSUMPTION

NORTH WESTERN RAILWAY.

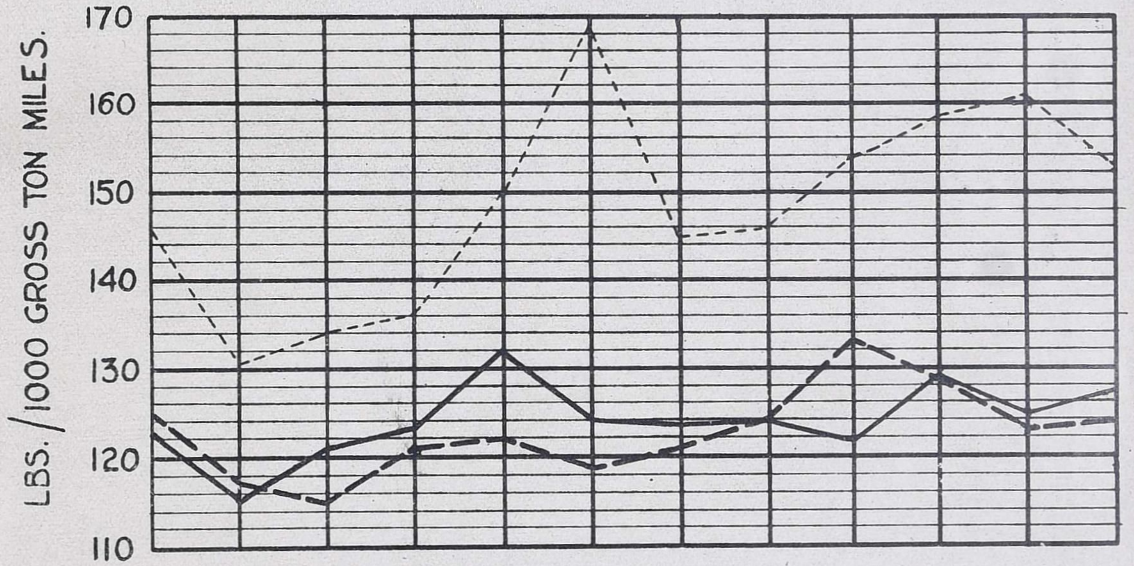
5'-6" GAUGE.

1926 - 27 ----------
1932 - 33 — — — — —
1933 - 34 ————————

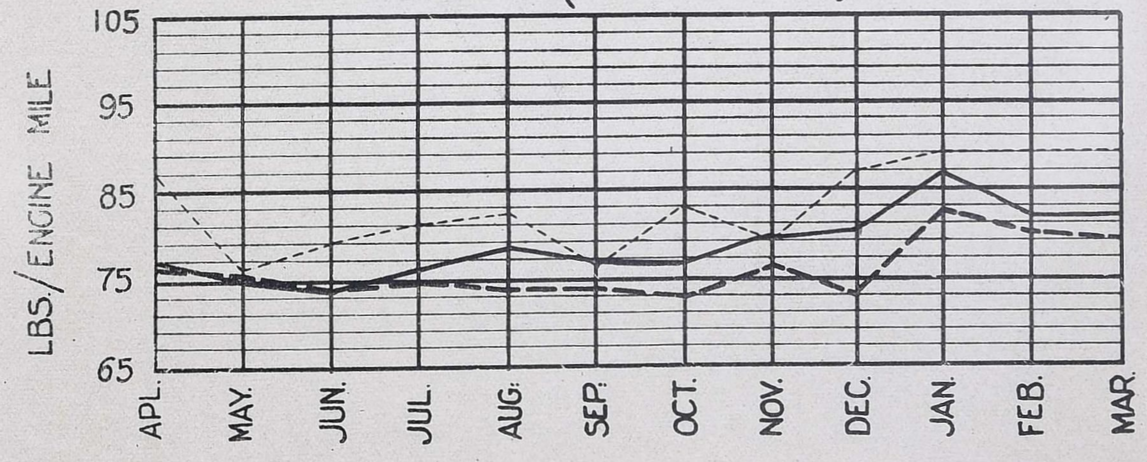
PASSENGER SERVICES (INCLUDING PROPORTION OF MIXED SERVICES.)



GOODS SERVICES (INCLUDING PROPORTION OF MIXED SERVICES)



SHUNTING (INCLUDING SIDINGS.)



The Fuel Economy Committee met the Fuel Officers of State-managed Railways once during the year to review the progress made and the results obtained by State-managed Railways and to initiate further measures to be adopted to economise in coal consumption.

45. Punctuality of passenger trains.—The following table shows the running of passenger trains on Class I Railways during the year under review as compared with the previous year :—

Percentage of passenger trains not losing time to total number of trains run during 1933-34 as compared with 1932-33.

—	All trains (including electric trains).	Mail and important through trains.	Mixed trains.	Suburban trains.	Other passenger trains.
Broad Gauge.					
1933-34	**87·0**	**83·0**	**84·3**	**89·5** **93·4***	**84·5**
1932-33	85·1	81·3	82·9	85·7 94·8*	84·3
Metre Gauge.					
1933-34	**87·2**	**86·4**	**86·5**	**95·7** **91·1***	**85·2**
1932-33	86·5	85·0	86·6	95·9	83·8

* Bombay, Baroda and Central India, Great Indian Peninsula and South Indian Railways' electric trains.

It will be seen that on the broad gauge there has been an appreciable improvement in the punctuality of all passenger trains, except the suburban electric service which shows a slight falling off. On the metre gauge, although the percentage of mixed and suburban trains not losing time remained practically the same other passenger trains maintained a better standard of punctuality.

46. Through Mail and Express services.—The following are some of the more important changes in the running of mail and express train services made during the year under review :—

East Indian Railway.—Nos. 1 Up and 2 Down Calcutta-Delhi-Kalka Mails which were previously running *viâ* the main line were diverted *viâ* the Grand Chord in order to relieve the overcrowding in Nos. 7 Up and 8 Down Howrah-Delhi Express trains.

Nos. 5 Up and 6 Down Punjab Mails running between Moghalsarai and Lahore were extended from and to Howrah.

Great Indian Peninsula Railway.—The running of a bogie first, second and third class carriage between Bombay and Lucknow *viâ* Jhansi on Nos. 5 Down and 6 Up Punjab Mails between Bombay and Jhansi and by Nos. 601 Down and 602 Up between Jhansi and Lucknow was arranged as an experimental measure from 1st January, 1934.

47. System of Ticket Checking.—*Assam Bengal Railway.*—The line is sectionalised and several Travelling Ticket Examiners are posted to each section under a Head Ticket Examiner. The programme for each man is drawn up at Headquarters so as to provide, as far as possible, that the majority of trains come under check on each section. The bookings of Travelling Ticket Examiners are changed every ten days and reliefs are arranged to ensure that every section of the line is being checked.

Bengal and North-Western Railway.—The Travelling Ticket Checking Staff is divided into ten sections, based on important stations. There are three supervisors who move about the line to ensure the efficiency of the check.

There is one special group which is detailed, as circumstances require, to check particular areas where it is suspected that systematic fraud is prevalent. During *melas*, this group helps the regular staff at stations and on trains.

Bombay, Baroda and Central India Railway.—Tickets are checked in trains—

(1) by station staff at selected stations where trains halt sufficiently long to enable this to be done,

(2) by specially appointed travelling ticket examiners.

Each District Traffic Superintendent is responsible for making his own arrangements to ensure that additional staff on his district are utilised in the manner calculated to give most satisfactory results, having regard to local conditions.

Burma Railways.—Travelling Ticket Examiners work under the orders of the District Traffic Superintendent, the number varying according to the size of the district and the train services. Each Travelling Ticket Examiner has to check all the trains passing through his section. The railway system is further divided into three parts, on each of which operates a Flying Squad of one Travelling Ticket Inspector and two Travelling Ticket Examiners.

Eastern Bengal Railway.—The " Alternate Crew Check " arrangement previously introduced continued on the suburban sections during the year. Important and heavy trains are checked on alternate days by groups, each group consisting of a Crew-in-charge and five crewmen. Other trains are also checked on alternate days by groups, each composed of two or three men, according to the density of traffic.

On other than the suburban area, all trains are checked daily by groups each consisting of one Crew-in-charge and one crewman.

East Indian Railway.—The system of checking tickets as recommended by the Moody-Ward Committee, mention of which was made in the last year's report, continued in force.

Great Indian Peninsula Railway.—A permanent flying squad consisting of two Travelling Ticket Inspectors and eight Ticket Checkers and a scale porter is employed on the Bombay Division to travel in trains and to collect excess fares, etc. Flying Squads are also employed under the Divisional Traffic Managers, whenever this can be arranged with the staff at their disposal.

The crew system under the Divisional Traffic Manager, Nagpur, is being operated on the Bhusaval-Harda (141 miles) and Bhusaval-Badnera (136 miles) sections. Each group consists of a Foreman and a sufficient number of crewmen to allow for the allotment of one man to each coach. Tickets are checked on every train in the crew area while the train is running. A Senior Inspector of Crews stationed at Bhusaval and Crew Inspectors, each of whom has a length allotted, supervise the working of the crews.

Madras and Southern Mahratta Railway.—The travelling ticket checking staff is utilised for special checks at selected stations, and also at the larger stations where it has been the practice to withdraw temporarily the permanent checking staff and to replace them by special duty travelling staff.

A recent innovation is the authorising of Senior Inspectors of other Departments, when travelling by trains and not engaged on their legitimate duties, to check trains with the object of ascertaining if passengers hold correct tickets. Altogether 175 Inspectors have been so authorised. In the first month—*viz.*, March 1934—they detected 350 cases of passengers without tickets.

His Exalted Highness the Nizam's State Railway.—During the first three months of the year Travelling Ticket Inspectors worked individually and checked important trains daily and other trains at frequent intervals. In addition a batch of two or three Traffic Inspectors made surprise checks.

Leyland buses with English built all-metal bodies run by the railway.

From July 1933, a slightly revised programme was introduced, according to which during the first fortnight of each month every Travelling Ticket Inspector by turn checked daily all important trains on the metre gauge and other trains at frequent intervals. The broad gauge system was divided into five sections, and batches of two Travelling Ticket Inspectors were deputed to each section by rotation to make surprise checks. During the second fortnight this procedure was reversed, *i.e.*, on the broad gauge individual checks were made by Travelling Ticket Inspectors, all important trains being checked daily and other trains at frequent intervals while five batches of two Travelling Ticket Inspectors in each made surprise checks on the metre gauge system concentrating on each section by rotation. As a result of this experiment there was an increase in the number of trains checked per day and in the number of passengers detected travelling without tickets.

North Western Railway.—An organisation of special ticket examiners is formed, who work in groups of five men with one Group-in-charge. These groups are employed alternately in checking tickets at stations and on trains according to fixed programmes, and, in addition, in flying groups outside the ordinary programmes, as and when considered necessary.

A group of special ticket examiners is occasionally divided into sub-groups of not less than two men on the main line sections and one man on branch line sections, but when so detailed they are still attached to and are under the supervision of their respective Group-in-charge.

All groups are permitted to collect excess fares from passengers without tickets, whether at stations or in trains.

South Indian Railway.—Travelling Ticket Examiners allotted to the districts check trains according to monthly rosters and about 70 per cent. of trains are checked daily. Three Ticket Checking Squads at headquarters are allotted to the North and South Sections on the metre gauge and to the broad gauge. Each squad is split up into three batches who check passenger tickets on as many trains as possible. In addition to the three squads there is a special Festival Squad, deputed to attend all important festivals and check trains near stations at which a festival takes place. Normally their work is similar to that of other squads.

48. Road Motor Competition.—With a view to formulate a policy for the future which would secure as far as possible co-ordinated development of road and rail transport facilities, the Government of India appointed a small technical committee last year to enquire into the extent of competition between the railway and road motor transport in the various provinces of India and to collect relevant data therefor. In pursuance of the recommendations of the Committee, which submitted its report known as the Mitchell-Kirkness Report in January, 1933, a conference was convened by the Government of India in Simla in April, 1933, which passed certain resolutions with a view to checking undesirable competition.

The Government of India have been in correspondence with local Governments as to the action to be taken to implement the resolutions adopted at the Rail-Road Conference.

49. Mela Traffic.—The fair or *mela* traffic on railways invariably calls for special arrangements to be made both at stations and in regard to the provision of special trains or the attachment of additional coaches to the regular train services. Railway Administrations also arrange to give wide publicity to these fairs by distributing notices and handbills in English and the vernacular in order to stimulate traffic. The following were some of the important *melas* necessitating careful traffic organisation :—

(1) *The Sinhast fair at Ujjain.*—This fair which takes place every 12th year was in 1933 held from the 15th April to the 15th May, when approximately 115,000 passengers travelled to Ujjain and 130,000 from Ujjain. The entire medical and sanitary arrangements at the station were under the con-

trol of the Medical Department of the Bombay, Baroda and Central India Railway.

(2) *Solar eclipse fair at Kurukshetra.*—This important *mela* was held on the 21st August. The figures of inward and outward passengers at Kurukshetra for the period 10th to 25th August 1933 compare with the figures for the corresponding period of 1932 as follows :—

	1933.	1932.
Inward	**154,941**	3,244
Outward	**108,579**	5,534

(3) *Adh Kumbh Mela.*—This was held at Hardwar from 20th March 1933 and continued during the month of April. The attendance which it was estimated would have been about 350,000 was adversely affected by rumours of an outbreak of plague at Hardwar.

The number of passengers booked to Hardwar, Jawalapur and Rikhikesh during March and April 1933 was 220,897, the earnings on the inward traffic only over the East Indian Railway amounting to approximately Rs. 2,81,250.

There was keen road motor competition particularly between Saharanpur and Hardwar but this was countered to some extent by arranging to run all special trains from the North Western Railway through to Khanalampura West, where there are no facilities for motor buses to park. The imposition by the local bodies concerned of a pilgrim tax of two annas per head on road-borne traffic entering Hardwar and Jawalapur as is levied on third class passengers carried by railway—tended to equalise the factors bearing on competitive conditions as between the railway and the road.

50. Wagon position.—During the year under review, the number of wagons were found sufficient to meet all demands except during the month of February, 1934. The number of wagons loaded recorded an increase of approximately 298,000 equivalent to 8·12 per cent. more than the number loaded in the previous year. Coal despatches were more by approximately 905,427 tons, representing an increase of 5·64 per cent. over the previous year.

51. Neutral examination of interchanged wagon stock.—The staff working under the Director of Wagon Interchange continued to examine wagons interchanged between railways at the following junctions :—

Agra Cantonment.	Khanalampura.
Ajni Nagpur.	New Delhi.
Chheoki.	Raichur.
Ghaziabad.	Waltair.

In addition to a neutral umpire appointed at Gomoh in July 1932, another at Katni Merwara was appointed at the request of the Bengal Nagpur and Great Indian Peninsula Railways from 1st February 1934.

52. Debits for damages and deficiencies.—The debits raised for deficiencies, damages and loose fittings on wagons interchanged at junctions under neutral control show a further reduction during the year as will be seen from the following figures :—

	Number of wagons interchanged.	Debit per wagon. Rs. A. P.
1932-33	787,001	3 7 9
1933-34	837,221	2 5 6

This decrease is chiefly due to the relaxation of certain rules regarding charges for damages not usually repaired at train examining stations.

The percentage of damaged wagons rejected at neutral junctions during the period under review represented 1·4 as compared with 1·7 in the previous year.

The test of vacuum braked wagons at neutral junctions continued during the year, and the number of wagons penalised for inoperative cylinders was 1·2 per cent. of the total interchanged as compared with 1·5 per cent. in the previous year.

53. Railway Collieries.—The output from the principal railway-owned collieries during 1933-34 compares with the previous year's output as follows :—

Colliery.	Owner.	Output (tons).	
		1932-33.	1933-34.
1. Joint Bokharo	E. I. & B. N. . .	485,594	**551,650**
2. Joint Sawang	E. I. & B. N. . .	75,531	**56,097**
3. Kurharbaree and Serampore .	State	550,326	**604,780**
4. Bhurkunda	State	148,135	**103,348**
5. Kargali	State	423,919	**495,934**
6. Argada	B. N.	195,078	**197,393**
7. Talcher	B. N.	18,521	**51,401**
8. Jarangdih	B., B. & C. I. and M. & S. M.	128,023	**140,810**
9. Talcher	M. & S. M. . . .	89,494	**185,130**
10. Kurasia	B., B. &. C. I. . .	13,792	**83,477**

State Railway Collieries.

Bhurkunda Colliery.—Owing to greatly restricted output, development work both underground and on the surface was stopped and raisings had to be reduced by decreasing the working days to an average of 4 per week.

All buildings, plant and machinery, and the Power House were maintained in a satisfactory condition. The supply of labour and the health of the colliery were satisfactory.

Kargali Colliery.—Development work at the pits were curtailed due to restricted output and no main headings were driven. A ventilation fan was installed at the pits and is working satisfactorily at a capacity of about 100,000 cubic feet per minute under a water gauge of ·9 inches.

All Power House and colliery machinery were maintained in a satisfactory condition. The labour supply and the general health of the community were satisfactory.

East Indian and Bengal Nagpur Joint Sawang Colliery.—No construction work has been carried out at this colliery during the year under review. The labour supply was adequate and the health of the community was good. No reportable accidents occurred during the year.

East Indian and Bengal Nagpur Joint Bokharo Colliery.—No new construction work was undertaken at this colliery during the year under review. The laying of the pipe line from the Air Compressor to the quarries has been completed. The screening plants and haulages have worked satisfactorily. The labour supply was adequate and the health of the community was good.

There were nine reported accidents during the year under review, in which nine persons were injured, one of whom, an earth-cutter died in hospital as a result of the injuries sustained by him.

Giridih Collieries.—(i) *Serampore Colliery.*—Conditions at this colliery continued to be difficult but the output has been satisfactorily maintained. Underground fires in places grew active but were successfully dealt with. The ventilation of the mine has been further improved by enlarging the area of many airways and re-inforcing separation stoppings. The underground haulage systems have worked satisfactorily.

(ii) *Kurharbaree Colliery.*—The necessary output was satisfactorily maintained. Conditions underground have been difficult but are improving. A slight ignition of fire-damp occurred in a district in No. 1 Jubilee pit on the 13th May 1933, but no one was burnt. Safety lamps were installed at once. The gas diffused immediately and there has not been a trace of it found since. This, as far as is known, is the first time fire-damp has been found at Giridih. The gallery in which it appeared is an area intersected by dykes and faults.

(iii) *By-product Coke Ovens.*—The outturn from the By-product Coke and Benzol Plant for the year was as follows :—

(1) Coke	19,972 tons	3 cwts.	0 qrs.
(2) Tar	795 ,,	18 ,,	0 ,,
(3) Sulphate of Ammonia	214 ,,	6 ,,	3 ,,
(4) Sulphuric Acid	273 ,,	12 ,,	3 ,,
(5) Benzol	27,237 gallons.		
(6) Refined solvent Naptha	880 ,,		
(7) Crude solvent Naptha	367 ,,		

The whole plant worked satisfactorily during the year.

Bombay, Baroda and Central India and Madras and Southern Mahratta Railways' Jarangdih Colliery.—The output from this colliery decreased by 16,910 tons as compared with the previous year's output. This colliery is considered to have reached the revenue earning stage from 1st April 1934.

Bombay, Baroda and Central India Railway's Kurasia Colliery.—The output from this colliery increased by 69,282 tons as compared with the previous year's output. This colliery is being developed to its full capacity of 250,000 tons per annum.

Bombay, Baroda and Central India and Madras and Southern Mahratta Railways' Joint Religara and Dari Colliery.—The lease on this colliery was terminated on the 29th January 1934.

Bengal Nagpur Railway's Talcher Colliery.—The development of this colliery is still in progress and although the colliery has not been properly opened, supplies continued during the year under review and the total raisings amounted to 52,196 tons.

Coal mined in India.—In 1933 the total coal mined in the various Provinces of British India amounted to 18,160,681 tons as against 18,719,587 tons in 1932, or a decrease of 558,906 tons.

Quantity of coal despatched by rail.—The quantity of coal carried by the East Indian and Bengal Nagpur Railways was as follows :—

East Indian Railway	11,766,800 tons.
Bengal Nagpur Railway	7,171,919 ,,

Shipments of coal from Calcutta.—Shipments including bunker coal from the Port of Calcutta to Indian and Foreign Ports during 1933-34 amounted to 2,372,683 tons of which 300,060 tons were on account of Indian Railways and 140,799 tons for Ceylon Government Railways or a total of 440,859 tons as compared with 604,629 tons in 1932-33.

Tonnage of Coal inspected by the State Railway Coal Department.—The State Railway Coal Department inspected 5,974,946 tons coal during 1933-34 as compared with 5,677,166 tons in 1932-33.

Indian Coal Grading Board.—The State Railway Coal Department continued to carry out work on behalf of the Indian Coal Grading Board to various ports during the year. The amount of cargo coal shipped under the Indian Coal Grading Board to various ports during 1933 was 1,896,155 tons and inspections were carried out by this Department both at the collieries and Kidderpore Docks.

CHAPTER V.

ROLLING STOCK AND MATERIALS.

54. Additions to equipment.—During the year the following rolling stock, including arrears brought forward from previous years, was on order for broad and metre gauge railways respectively :—

Items.	*Broad Gauge.*	*Metre Gauge.*
Locomotives	18	35
Coaching Stock	264	282
Goods Stock	3,142	716

Those actually placed on the line by the end of the year were as follows :—

Items.	*Broad Gauge.*	*Metre Gauge.*
Locomotives	15	19
Coaching Stock	210	125
Goods Stock	2,600	333

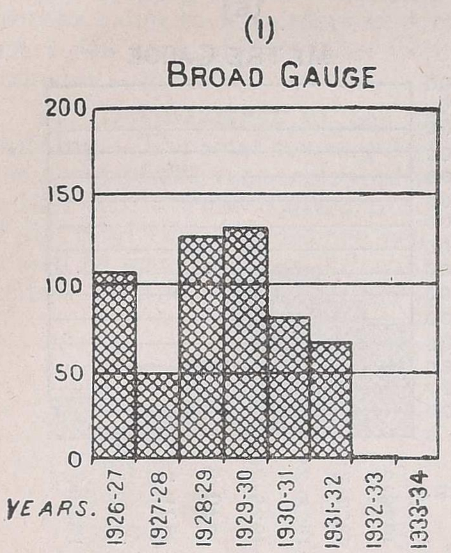
55. The numbers of coaching and goods stock shown in the preceding paragraph are stated in terms of four-wheelers, a bogie being reckoned as two four-wheelers. These figures do not, however, represent the actual net additions to rolling stock as they also include stock built in replacement of existing engines and vehicles which had reached the end of their useful life.

No broad or metre gauge locomotives were obtained as additions during the year. On the broad gauge 128 locomotives were scrapped during the year, of which 15 were replaced so that the number of locomotives on 31st March 1934 was 113 less than at the beginning of the year. The number of metre gauge locomotives at the end of the year was 23 less than at the beginning, 42 being scrapped during the year, 19 of which were replaced. The average tractive effort per engine rose in the course of the year from 25,045 lbs. to 25,262 lbs. on the broad gauge and from 14,707 lbs. to 14,906 lbs. on the metre gauge.

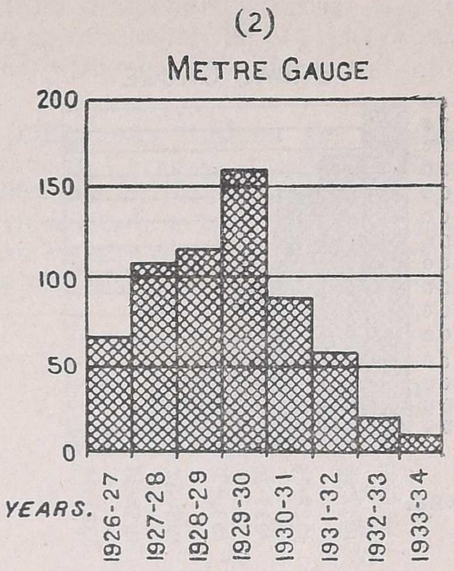
Coaching vehicles.—The number of broad gauge coaching vehicles at the end of the year was 124 less than at the beginning, due to 334 being scrapped during the year, of which 210 were replaced. On the metre gauge, the number of coaching vehicles at the end of the year was 95 less than at the beginning, 220 being scrapped during the year, of which 125 were replaced.

Wagons.—There was no addition to the number of broad and metre gauge wagons. The number of broad gauge wagons at the end of the year was 1,328 less than at the beginning, due to 3,928 being scrapped during the year of which 2,600 were replaced. On the metre gauge, the number of wagons at the end of the year was 775 less than at the beginning, 1,108 being scrapped during the year, 333 of which were replaced.

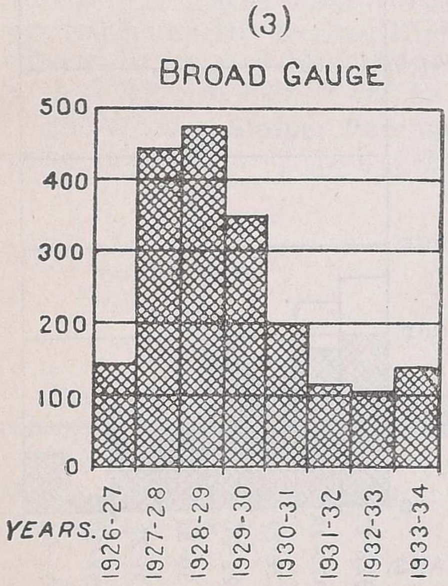
56. The graphs on the following pages show the total number of locomotives, boilers, carriages and wagons provided for in the programmes of Class I Railways during the past eight years. These figures include replacements and renewals.



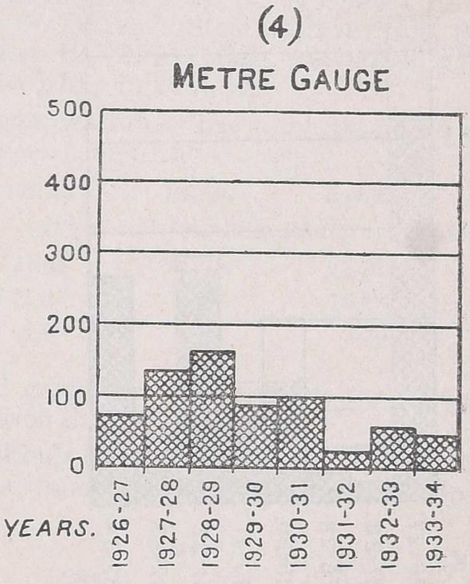
Number of locomotives provided in the rolling stock programme.



Number of locomotives provided in the rolling stock programme.



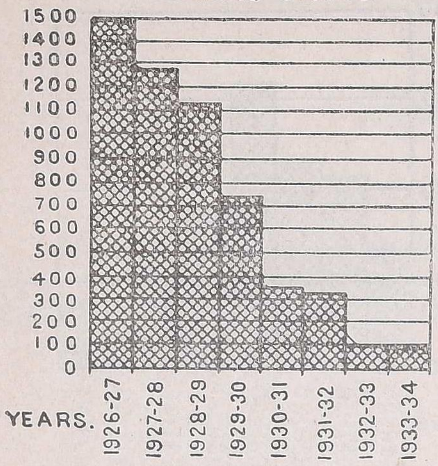
Number of boilers provided in the rolling stock programme.



Number of boilers provided in the rolling stock programme.

(5)

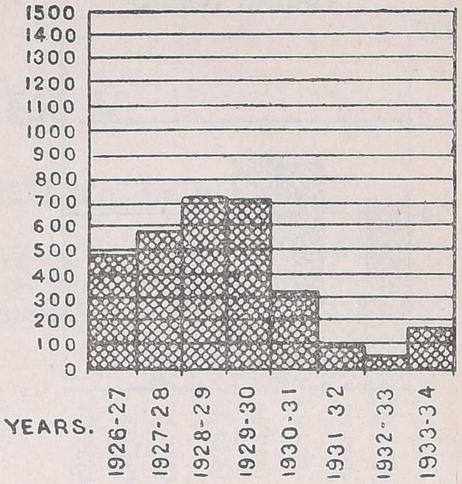
BROAD GAUGE



Number of coaching stock units provided in the rolling stock programme.

(6)

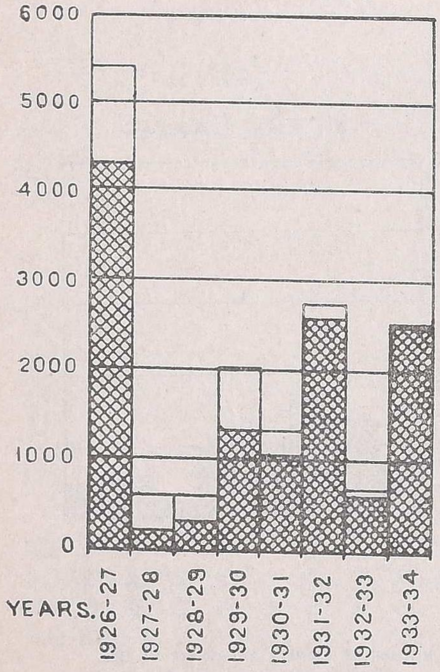
METRE GAUGE



Number of coaching stock units provided in the rolling stock programme.

(7)

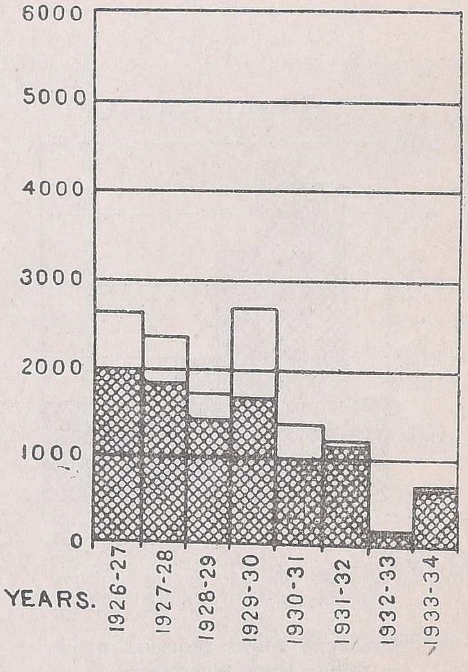
BROAD GAUGE



General service & other types of wagons in units provided in the rolling stock programme.

(8)

METRE GAUGE



General service & other types of wagons in units provided in the rolling stock programme.

General service wagons shown thus

Other types shown thus

57. Supply of rails and fishplates from indigenous sources.—During the year under review orders amounting to approximately 38,916 tons of rails and 1,546 tons of fishplates were placed with the Tata Iron and Steel Company.

58. Development of the use of indigenous timbers for carriage building.—The total consumption of timber in Carriage and Wagon Shops was about 21,231 tons compared with 28,000 tons in 1932-33 and 29,000 tons in 1931-32. As new construction was much reduced, no less than 82 per cent. of the total timber consumed was used for repairs and miscellaneous work. It will be seen from the following figures that the proportion of indigenous timbers used has steadily risen :—

	Percentage of total.	
	Burma teak.	Indian Teak and miscellaneous timbers.
1930-31	50	50
1931-32	40	60
1932-33	36	64
1933-34	33	67

When more new coaching stock is constructed the demand for Burma teak may be expected to increase, provided the price is satisfactory.

On the East Indian Railway twenty-three bogie vehicles were constructed with kiln-seasoned timber and sent into traffic and forty-six vehicles, partly constructed of indigenous timber, passed through the shops for overhaul during the year. The timber was found to be still serviceable although in some cases shrinkage and warpage had taken place.

On the North Western Railway the use of indigenous timber was 81 per cent.

The total amount spent on timber, other than sleepers, by Class I Railways (excluding His Exalted Highness the Nizam's State Railway and the Jodhpur Railway) during the year was Rs. 21·51 lakhs compared with Rs. 14·17 lakhs in 1932-33 and Rs. 37·99 lakhs in 1931-32.

59. Wooden Sleeper Purchase Organisation.—The total purchases of wooden sleepers during the last three years have been :—

	1931-32.	1932-33.	1933-34.
	(Number of sleepers in lakhs.)		
Broad gauge	21·34	12·15	12·37
Metre gauge	11·47	11·06	10·29
Narrow gauge	1·30	1·17	2·20

Demands for renewals on the broad gauge were reduced for the sake of economy and there was no new construction during the year.

The relative position of the various kinds of sleepers can be seen from the following percentages, based on the total number of sleepers in the track of Class I Railways :—

	1933-34.			
	Wood.	Cast Iron.	Steel.	Other kinds.
Broad gauge	44·3	38·6	16·6	0·5
Metre gauge	71·8	6·0	22·1	0·1

The wooden sleeper track mileage of all gauges on Class I Railways on March 31st, 1934, was 28,870 miles out of a grand total of 53,211 miles.

No wooden sleepers were imported from abroad, and very few orders for special sized sleepers were placed in Burma, unlike previous years, because the reduced requirements could be met in India at lower prices. The price of *sal* sleepers in the Eastern Group remained steady at Rs. 5-1-4 for broad gauge and Rs. 1-15-3 for metre gauge sizes.

At Dhilwan on the North Western Railway the following soft wood sleepers of coniferous trees were impregnated with a mixture of 40 per cent. creosote and 60 per cent. liquid fuel:—

	Fir.	Chir.	Kail.	Deodar.
Number of broad gauge sleepers .	64,342	147,952	6,746	...
Absorption	15·5 lbs.	15·4 lbs.	15·6 lbs.	...

The price of the treated sleepers, including all charges, were:—

	Rs. A. P.
Treated chir	5 10 5
,, fir	4 15 0
,, kail	5 5 9

The cost of treated sleepers has gone a little higher than in the previous year, owing to 2,19,040 sleepers being treated in 1933-34 against 4,03,543 in 1932-33, thereby increasing the proportion of the treating charges and also on account of the average higher price of Chir and Kail sleepers paid in 1933-34. The reduced number of sleepers treated was partly due to short deliveries against the contracts placed. It is, however, anticipated that the charges will be considerably reduced in 1934-35 as 5 to 6 lakhs of sleepers of all kinds are likely to be treated.

The sleeper treating plant at Naharkatiya, Assam Bengal Railway, had an output of 1,69,903 metre gauge sleepers. The cost of the sleeper was Rs. 2-4-0 and the treatment came to 12 annas per sleeper, total Rs. 3 as compared with Rs. 3-1-3 in the previous year.

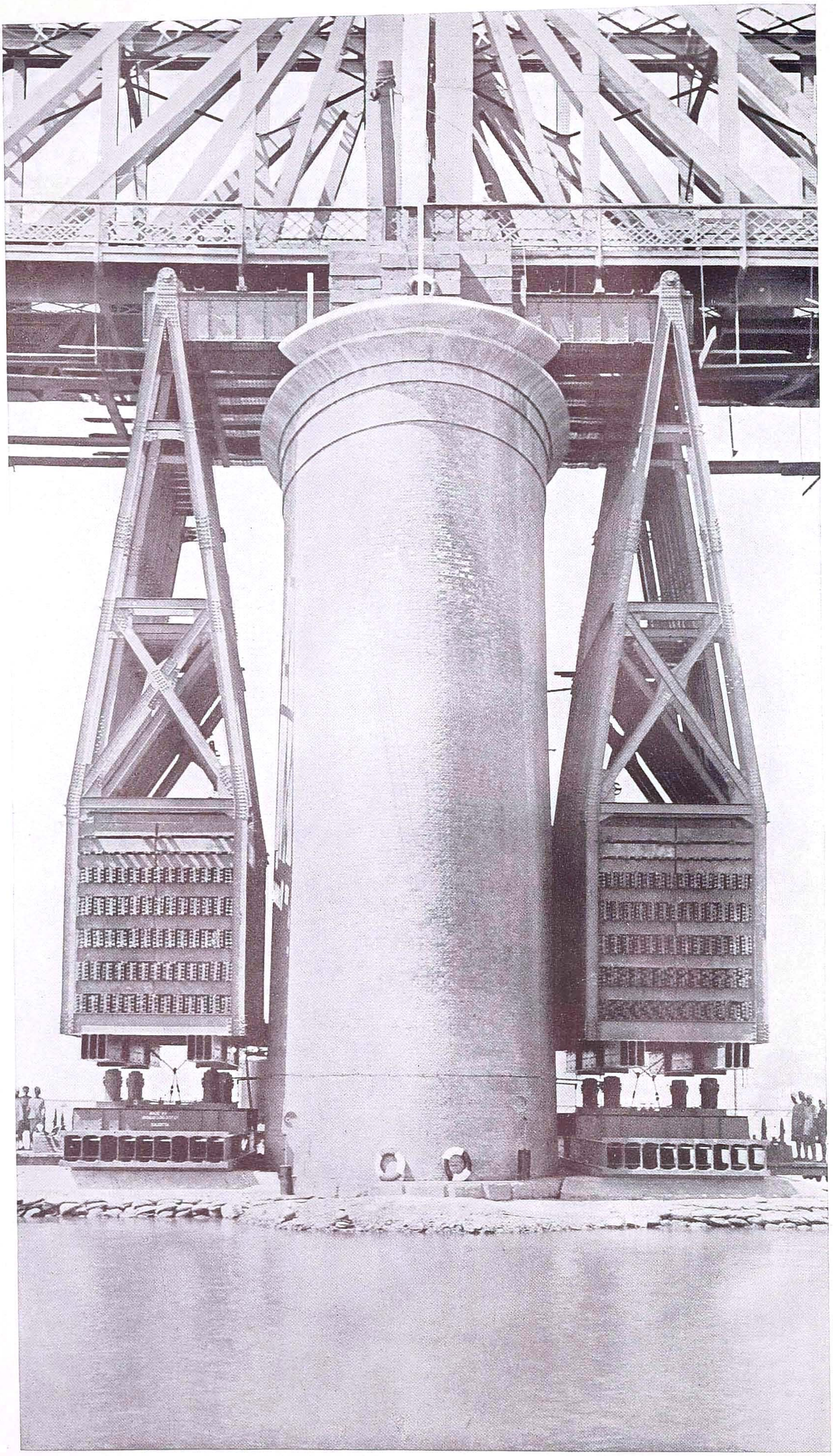
The total amount spent on wooden sleepers on Class I Railways (excluding His Exalted Highness the Nizam's State Railway and the Jodhpur Railway) was Rs. ·92 crores compared with Rs. 1·27 crores in 1932-33 and Rs. 1·59 crores in 1931-32.

The annual meeting of the Sleeper Pool Committee took place at the Railway Board's Office, New Delhi, on the 27th October 1933.

60. Value of railway materials purchased.—The value of stores purchased by Class I Railways (excluding His Exalted Highness the Nizam's State and Jodhpur Railways which are mainly the property of Indian States) shows an increase from Rs. 11·04 crores in 1932-33 to Rs. 11·97 crores in 1933-34. The principal increases, as indicated by the statement below, were under rolling stock (87 lakhs) and tools and stores (43 lakhs). Against this there were decreases under the heads electric plant (9 lakhs), workshop machinery (9 lakhs) and other materials (18 lakhs). Of the total increase of Rs. 93 lakhs, Rs. 16 lakhs were accounted for by "imported materials" and 77 lakhs by "indigenous materials", the increase under the latter being mainly under rolling stock (66 lakhs) and tools and stores (11 lakhs).

Heading.	VALUE OF IMPORTED MATERIALS.			Value of indigenous materials.	Total purchases 1933-34.	Total purchases 1932-33.
	Purchased direct.	Purchased through Agents in India.	Total imported materials.			
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
Rolling stock	0·41	0·84	1·25	0·95	2·20	1·33
Tools and stores	0·14	1·73	1·87	1·60	3·47	3·04
Permanent way	0·04	0·05	0·09	1·92	2·01	2·07
Electric plant	0·07	0·43	0·50	0·03	0·53	0·62
Building and station materials and fencing .	0·01	0·10	0·11	0·09	0·20	0·18
Bridge work	..	0·13	0·13	0·08	0·21	0·13
Workshop machinery	0·05	0·11	0·16	..	0·16	0·25
Engineer's plant . . .	0·01	0·07	0·08	0·01	0·09	0·14
Other materials*	..	0·18	0·18	2·92	3·10	3·28
TOTAL .	0·73	3·64	4·37	7·60	11·97	11·04

* Other materials consist of coal and coke, stone, bricks, lime and ballast, etc.



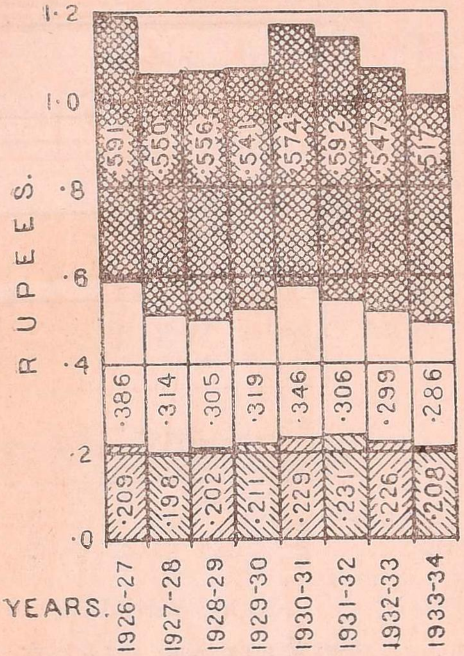
Dufferin Bridge—Testing of pier No. 3 by the application of a 2,000 tons test load.

Running repairs shown thus
Workshop repairs shown thus
Operating expenses shown thus

COST OF MAINTENANCE AND SUPPLY OF LOCOMOTIVE POWER PER 1,000 GROSS TON MILES.

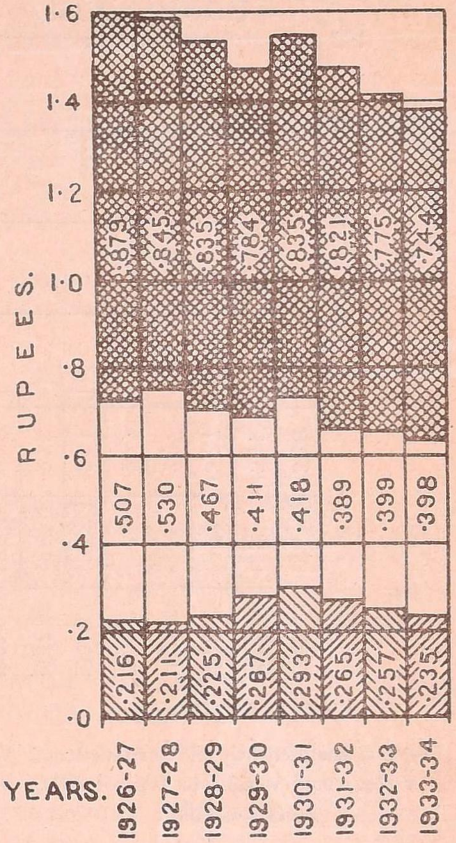
(1)

BROAD GAUGE.



(2)

METRE GAUGE.

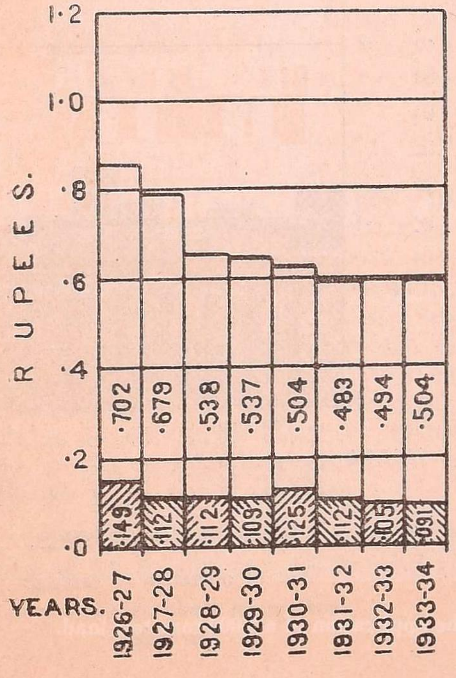


COACHING VEHICLES.

COST OF MAINTENANCE AND OPERATION OF CARRIAGE AND WAGON STOCK PER 1,000 GROSS TON MILES.

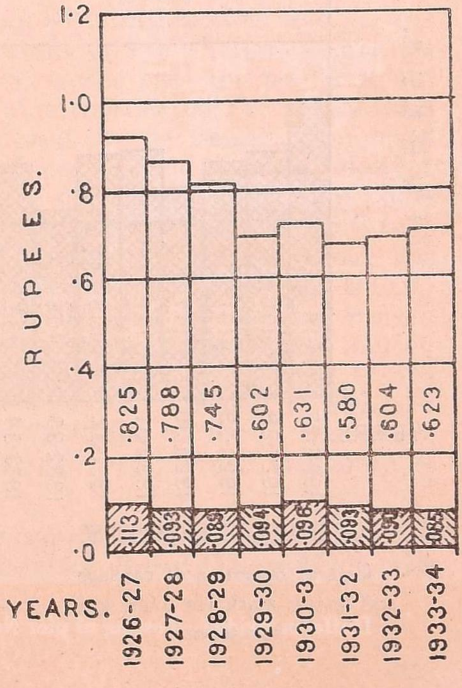
(3)

BROAD GAUGE.



(4)

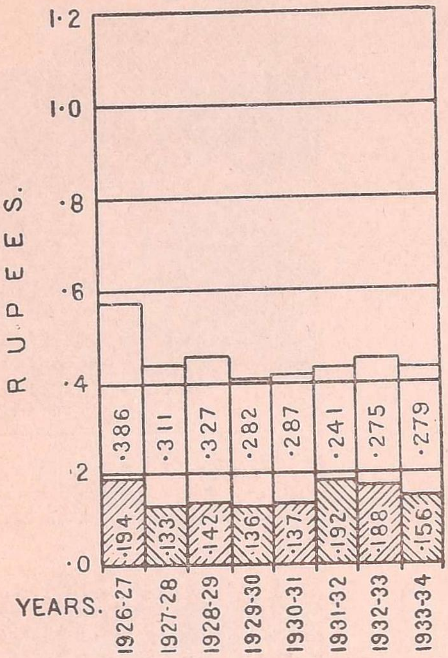
METRE GAUGE.



Running repairs shown thus
Workshop repairs shown thus
Operating expenses shown thus

(5)

BROAD GAUGE.

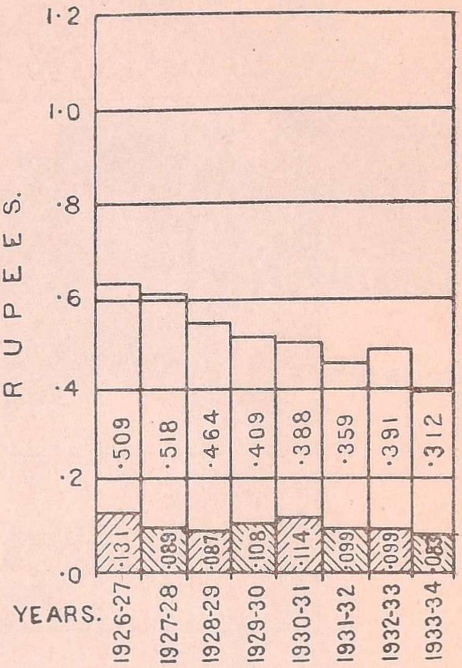


GOODS VEHICLES.

Cost of maintenance and operation of carriage and wagon stock per 1,000 gross ton miles.

(6)

METRE GAUGE.

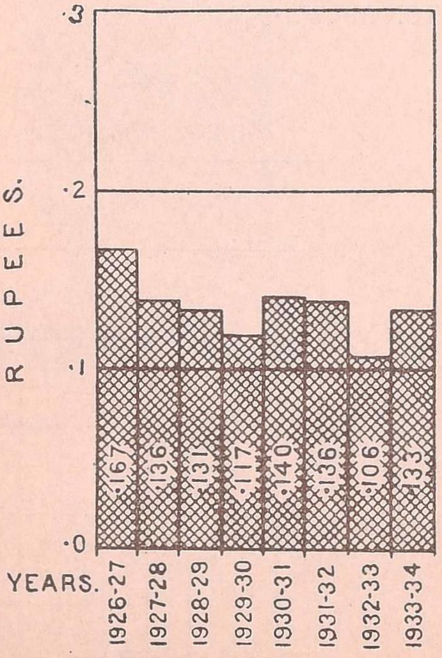


GOODS VEHICLES.

Cost of maintenance and operation of carriage and wagon stock per 1,000 gross ton miles.

(7)

BROAD GAUGE.

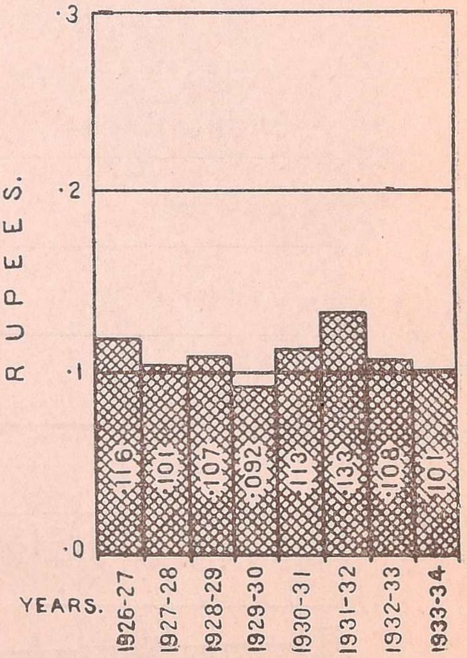


OPERATING EXPENSES.

Cost of operation of carriage and wagon stock per 1,000 gross ton miles.

(8)

METRE GAUGE.



OPERATING EXPENSES.

Cost of operation of carriage and wagon stock per 1,000 gross ton miles.

61. Purchase of Stores by railways through the Indian Stores Department.—The total value of stores purchased by railways through the agency of the Indian Stores Department during the year under review amounted to Rs. 176·06 lakhs of which Rs. 20·47 lakhs represented the value of textiles and Rs. 155·59 lakhs that of engineering, hardware and miscellaneous stores. The list of items, the purchase of which by State-managed Railways through the agency of the Indian Stores Department is obligatory, was reviewed and the following items of railway stores were added to the list, namely :—boilers (non-loco) and tubes for the same, electric welding plant, electrodes, electric cranes, air compressors, motors and control gear for driving machines (except where the motor forms a component part of a machine), gangmen's tools, superheater elements, Diesel electric locos, poles tubular for signals (where purchased without signals), point rodding (tubular or solid), leather, India rubber and canvas goods, belting of all kinds (leather, cotton, hair, rubber and balata, etc.), wire steel (mild) cloth linoleum, track tools bolts and nuts (including fishbolts and nuts), steel springs, laminated helical and valute and steel spring material, buffers and buffer parts, lavatory fittings, carriage ventilators, coat hooks, luggage racks, door fittings, window fittings, window glass, rubber buffing and draw springs, carriage rubber fittings, hand tools of all descriptions (excluding precision instruments), nails, rivets of all kinds and sizes, springs and steel spring material, glassware and glass.

The value of stores purchased by railways through the Indian Stores Department has increased from Rs. 152·77 lakhs during the previous year to Rs. 176·06 lakhs during the year under review. A comparison of the total value of stores purchased by railways during the recent years with the value of purchases made by them through the Indian Stores Department during the same period will also show that there has been a progressive increase in the percentage of the value of purchases through the Indian Stores Department to the value of total purchases by railways.

62. Cost of maintenance and supply of locomotive power and cost of maintenance and operation of carriage and wagon stock.—The results obtained during the year under review and the seven previous years in regard to the cost of maintenance and supply of locomotive power under the three major heads of accounts (running repairs, workshop repairs and operating expenses) and also of the cost of maintenance and operation of carriage and wagon stock per 1,000 gross ton miles for both broad and metre gauges of the Class I Railways in India, are reproduced in graphic form on the two preceding pages.

63. Central Standards Office.—During the year under review the Structural Branch of the Central Standards Office has standardized designs of diamonds and slips for Broad Gauge using 90 R rail section, and reports have been received of the successful trial manufacture of similar designs for Broad Gauge using 115 lbs. rail section. Stretcher bars for points Broad Gauge have been standardized. Messrs. Tatas commenced the preparation of rolls for the special sleeper section designed by the Central Standards Office for Broad Gauge Turnouts laid on steel sleepers and the detail designs of these turnouts with loose jaw and key type of rail fastening were taken in hand. Tentative drawings for ordinary track steel sleepers Broad Gauge with India Office pattern loose jaws have been issued and an order has been placed for trial of these sleepers by the North Western Railway. During the year a new design of cast iron sleeper with simplified fittings was evolved by the Central Standards Office. This has withstood the drop test and on the recommendation of the Track Standards Committee four Broad Gauge Railways have been asked to make trials of it in the road. Tentative standard 13′ 6″ over-riding switches for Metre Gauge 75 R and 60 R rail track have been issued and Railways asked to place trial orders. Broad Gauge 75 R turnouts were taken in hand.

Standard designs of plate girders were completed and standardized for spans of 10 ft.; 12 ft.; 15 ft. and 20 ft. clear for Broad Gauge M. L. and

H. M. load standards. Designs for 30 ft., 40 ft. and 60 ft. spans were taken in hand.

Preliminary investigations and tests were carried out with the assistance of the North Western Railway, Bridge Department, on 50 ft. long arc-welded lattice purlins to be incorporated in standard designs of platform roofs.

In the Mechanical Branch of the Central Standards Office detail drawings of CR and CMR types of covered wagons were prepared and issued. In addition over 500 drawings of additional underframe and wagon part drawings also coaching body part drawings were prepared and issued.

The work of the Standards Committees during the period under review is indicated in the following notes.

64. Locomotive Standards Committee.—During the year the Locomotive Standards Committee met once in February 1934.

At this meeting the Committee examined and approved the design of the proposed Metre Gauge 3,600 gallon tender, suggesting certain detail modifications be incorporated. The Committee also considered the report submitted by the Madras and Southern Mahratta Railway on the performance of the YK type locomotive. A large number of minor modifications necessitated by experience of the standard locomotives in operation were dealt with and to meet the particular requirements of individual administrations, additional items were recommended for inclusion in the list of permissible alternatives.

65. Carriage and Wagon Standards Committee.—The Carriage and Wagon Standards Committee met once during the year in November 1933.

At this meeting the Committee dealt with a number of minor modifications found necessary in operation, to the running gear and carriage and wagon bodies. The design of carriage and wagon axleboxes was thoroughly considered and recommendations were made which it is hoped will reduce the number of breakages of axleboxes now experienced on the Broad Gauge Railways. The Committee examined and approved, subject to minor modifications, the drawings of the new CR and CMR type wagons prepared by the Central Standards Office, also drawings of inspection gauges for carriage and wagon fittings and made recommendations for gauges for further details.

The report on the standardization of electrical equipment and specifications for electrical equipment submitted by the Electrical Sub-Committee was considered and approved.

66. Bridge Standards Committee.—During the year 1933-34 a meeting of the Committee was held at Delhi in January.

The Committee recommended and the Railway Board accepted the British Standards Institutions' Specification of Standard Welding Nomenclature, and it was agreed that the North Western Railway continue with testing work in connection with the application of welding to bridges which would give a basis for more detailed instructions for the future.

Certain clauses of the Bridge Rules, 1933 were revised in the light of remarks received since their issue, and on the results of further experiments on tractive and braking forces on bridges and longitudinal stiffness of track made by the North Western Railway an additional rule was framed for the purpose of relaxation for dispersion of these forces for existing bridges.

An important subject discussed was the adoption of High Tensile Steel for bridges; the Railway Board accepting the provisional specification for such steel as drafted by the Committee as a basis for a tentative specification. Further the Committee discussed the possible economic utilization of High Tensile rolled steel beams for small joist spans, and recommended that this be examined by the Central Standards Office.

The Committee also recorded their opinion as to the most suitable types of reinforced concrete slab tops for small bridges, and modified the tentative

Indian Railway Standard Specification B 1 and B 3 for bridge work and steel structures in the light of various remarks received prior to their being finally adopted and issued.

67. Track Standards Committee.—A meeting of the Committee was convened in March and one of the most important recommendations accepted by the Railway Board was the reduction of the amount of the ramping of wing rails of crossings which was based on actual measurement of worn crossings in the track.

The present length of standard fishplates was considered with regard to both economy and efficiency and the Committee basing their recommendations on extensive experimental data from American Railways, recorded that no change in the length of the present fishplates is justifiable.

In considering the results of the Dynamometer Car trials regarding the question whether gauge widening on curves up to 5 degrees is necessary the Committee deferred their recommendations pending further experimental data.

Two types of Cast Iron plate sleepers, *viz.*, the East Indian Railway type and the design evolved by the Central Standards Office were considered; the former was accepted as an approved type and trials of the latter were recommended.

The Committee considered that in the absence of any improved heel joint design which is both cheap and satisfactory the existing type as shown on the Standard designs should continue to be used. They also recorded that over-riding switches continued to prove satisfactory, and that no change should be made in the present designs until some definite defect has been found.

They recommend minor modifications to the diamonds and slips designed by the Central Standards Office and recorded their discussion on the following :—

(1) Morgan type of fishplate.

(2) Brown Bayley's spring washers for fishbolts.

(3) Rail bound manganese steel crossings.

(4) Guest Keen and Nettlefields composite steel sleeper.

(5) Messrs. Henry Williams saddle plate steel sleepers.

(6) Chrome steel for points and crossings.

68. Signalling and Interlocking Standards Committee.—The Committee met in Delhi in November-December after having inspected the double wire system of working which has been installed for some years at a number of stations on the Assam Bengal Railway and recorded their opinion whether this system could be accepted as safe, reliable and efficient for standard (iii) unrestricted speed or alternatively for standard (ii) speed restricted to 40 miles per hour. They also inspected the Assam Bengal Railway Point Lock and recorded their recommendations.

Specifications for standard Magneto Wall Telephones and electric cables for railway signalling was discussed and modification for the following specifications were recommended in the light of remarks received from various sources :—

(1) I. R. S. S1-30 for galvanized solid steel wire for signalling purposes.

(2) I. R. S. S7-32 for Roundels, glasses and lenses.

(3) I. R. S. S10-32 for signalling and interlocking fittings.

Criticisms of the Manual of Instructions for the Installation and Maintenance of Block Signalling Apparatus and additions to Rule 237 in Chapter X of the General Rules for all Open Lines of Railways in British India were also subjects of discussion.

The Committee's final recommendations regarding the three standards of signalling and interlocking equipment to be adopted at stations for :—

(1) 25 miles per hour,

(2) 40 miles per hour,

(3) Unrestricted speed,

were accepted by the Railway Board.

The provision of lights to be displayed at level-crossing to the road as well as to the railway as a signal to an engine driver received prolonged attention and the Committee's views were circulated to all Railway Administrations.

Proposals for Tubular steel signal posts were examined by the Committee.

CHAPTER VI.

STAFF.

69. Number of staff.—The total number of employees on all Indian Railways and in the office of the Railway Board and other offices subordinate thereto (excluding staff employed on construction) at the end of the year 1933-34 was 701,362 as compared with 710,512* at the end of 1932-33. The total route mileage at the end of the year was 42,953. The following table shows the number of employees by communities on the 31st March 1933 and 1934. A similar statement showing details by railways is given as Appendix C of Volume II of the Report by the Railway Board on Indian Railways for 1933-34.

Date.	Europeans.	Indians.							Grand Total.
		Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Other classes.	Total.	
31st March, 1933 .	4,314*	504,282*	153,089*	13,089*	8,601*	15,602*	11,535*	706,198*	710,512*
31st March, 1934 .	**3,906**	**497,505**	**151,625**	**12,844**	**8,339**	**16,167**	**10,976**	**697,456**	**701,362**

* Represents revised figures due to minor corrections made in the figures published last year.

70. Cost of staff.—The following statement shows the number and cost of all staff, superior and subordinate (including labourers), permanent and temporary, open line and construction, employed on Class I Railways during the years 1932-33 and 1933-34. Contractors' labour is not included.

Railway Systems.	Year.	Number of staff on 31st March.						Gazetted Officers on loan from the Indian Audit and Accounts Service (Deptt.).	Cost of staff.			
		Open line.			Construction.							
		Gazetted Officers.	Non-gazetted employees.	Total.	Gazetted Officers.	Non-gazetted employees.	Total.		Gazetted Officers.	Non-gazetted employees.	Total.	Total including staff on loan from the Indian Audit and Accounts Service (Deptt.).
1	2	3	4	5	6	7	8	9	10	11	12	13
									Rs.	Rs.	Rs.	Rs.
Assam Bengal .	1933	72	15,523	15,595	*Nil*	1	1	..	10,78,812	62,89,866	73,68,678	73,68,678
	1934	**67**	**16,341**	**16,408**	***Nil***	**1**	**1**	..	**11,19,427**	**63,94,599**	**75,14,026**	**75,14,026**
Bengal and North-Western.	1933	70	26,385*	26,455*	*Nil*	*Nil*	*Nil*	..	11,37,522	67,04,400	78,41,922	78,41,922
	1934	**72**	**26,725**	**26,797**	***Nil***	***Nil***	***Nil***	..	**10,89,917**	**68,88,081**	**79,77,998**	**79,77,998**
Bengal Nagpur .	1933	199*	64,276	64,475*	*Nil*	12	12	..	29,94,834*	2,84,38,333*	3,14,33,167*	3,14,33,167
	1934	**194**	**64,681**	**64,875**	***Nil***	***Nil***	***Nil***	..	**31,50,537**	**2,80,17,584**	**3,11,68,121**	**3,11,68,121**
Bombay, Baroda and Central India.	1933	172	66,599	66,771	2	208	210	..	27,94,829	3,71,52,633	3,99,47,462	3,99,47,462
	1934	**169**	**63,793**	**63,962**	**2**	**191**	**193**	..	**29,72,875**	**3,77,57,144**	**4,07,30,019**	**4,07,30,019**

Note 1.—* Represents revised figures for 1932-33 due to changes made by the railway administrations in the figures published last year.

Note 2.—The figures of cost include the salaries and wages of staff, bonus contributions to the provident fund, gratuities, overtime allowances and all other allowances which are of the nature of extra pay and which are not granted to meet some definite expense incurred in the performance of duty, such as travelling allowance.

Railway Systems.	Year.	Number of staff on 31st March. Open line. Gazetted Officers.	Open line. Non-gazetted employees.	Open line. Total.	Construction. Gazetted Officers.	Construction. Non-gazetted employees.	Construction. Total.	Gazetted Officers on loan from the Indian Audit and Accounts Service (Deptt.).	Cost of staff. Gazetted Officers.	Cost of staff. Non-gazetted employees.	Cost of staff. Total.	Cost of staff. Total including staff on loan from the Indian Audit and Accounts Service (Deptt.).
1	2	3	4	5	6	7	8	9	10	11	12	13
									Rs.	Rs.	Rs.	Rs.
Burma	1933	100	24,529*	24,629*	3	87	90	2	16,58,823*	1,22,73,390	1,39,32,213*	1,39,78,612
	1934	**100**	**24,429**	**24,529**	**2**	**62**	**64**	**1**	**16,90,353**	**1,22,48,529**	**1,39,38,882**	**1,39,79,628**
Eastern Bengal	1933	129*	45,700	45,829*	2	1,196	1,198	6	20,56,562*	2,21,36,108*	2,41,92,670*	2,42,41,122
	1934	**116**	**48,590**	**48,706**	***Nil***	**7**	**7**	**5**	**20,60,252**	**2,17,70,953**	**2,38,31,205**	**2,38,78,549**
East Indian	1933	318	123,615	123,933	1	458	459	2	47,54,217*	5,24,68,559	5,72,22,776*	5,72,46,776
	1934	**307**	**121,329**	**121,636**	***Nil***	**48**	**48**	**4**	**46,06,039**	**5,22,36,349**	**5,68,42,388**	**5,68,90,388**
Great Indian Peninsula.	1933	216*	86,270	86,486*	*Nil*	*Nil*	*Nil*	3	43,29,767*	4,44,57,804	4,87,87,571*	4,88,41,620
	1934	**212**	**83,436**	**83,648**	***Nil***	***Nil***	***Nil***	**3**	**49,03,225**	**4,36,77,554**	**4,85,80,779**	**4,86,34,828**
Jodhpur	1933	20*	6,702	6,722*	*Nil*	10	10	1	3,03,925*	22,49,809	25,53,734*	25,83,734
	1934	**20**	**6,799**	**6,819**	**1**	**21**	**22**	**1**	**3,32,528**	**22,88,053**	**26,20,581**	**26,50,581**
Madras and Southern Mahratta.	1933	147	50,726	50,873	1	375	376	..	22,26,714	2,15,50,908	2,37,77,622	2,37,77,622
	1934	**142**	**49,492**	**49,634**	***Nil***	**236**	**236**	..	**24,57,754**	**2,27,31,128**	**2,51,88,882**	**2,51,88,882**
Nizam's State	1933	52	16,044	16,096	3	946	949	..	10,36,803*	59,52,277*	69,89,080*	69,89,080
	1934	**59**	**16,697**	**16,756**	**1**	**96**	**97**	..	**10,13,190**	**60,84,897**	**70,98,087**	**70,98,087**
North Western	1933	266	107,929*	108,195*	1	23	24	12	41,42,858*	5,50,19,316*	5,91,62,174*	5,93,21,658
	1934	**267**	**102,266**	**102,533**	***Nil***	**10**	**10**	**5**	**43,39,327**	**5,59,59,435**	**6,02,98,762**	**6,04,52,206**
Rohilkund and Kumaon.	1933	15	5,367	5,382	*Nil*	*Nil*	*Nil*	..	2,16,526	15,11,265	17,27,791	17,27,791
	1934	**15**	**5,447**	**5,462**	***Nil***	***Nil***	***Nil***	..	**2,54,992**	**14,98,178**	**17,53,170**	**17,53,170**
South Indian	1933	131	36,448	36,579	3	449	452	..	20,81,965*	1,65,51,151*	1,86,33,116*	1,86,33,116
	1934	**128**	**35,393**	**35,521**	**4**	**484**	**488**	..	**20,79,955**	**1,64,68,579**	**1,85,48,534**	**1,85,48,534**
Total	1933	1,907*	676,113*	678,020*	16	3,765	3,781	26	3,08,14,157*	31,27,55,819*	34,35,69,976*	34,39,32,430
	1934	**1,868**	**665,418**	**667,286**	**10**	**1,156**	**1,166**	**19**	**3,20,70,371**	**31,40,21,063**	**34,60,91,434**	**34,64,65,007**

NOTE 1.—*Represents revised figures for 1932-33 due to changes made by the railway administrations in the figures published last year.

NOTE 2.—The figures of cost include the salaries and wages of staff, bonus contributions to the provident fund, gratuities, overtime allowances and all other allowances which are of the nature of extra pay and which are not granted to meet some definite expense incurred in the performance of duty, such as travelling allowance.

The above statement shows that the total number of staff on open line on 31st March 1934 was less by 10,734 than on 31st March 1933, while the total number of staff on construction was less by 2,615 and the staff on loan from the Indian Audit and Accounts Service was less by 7. The increase in the total cost of staff including staff on loan from the Indian Audit and Accounts Service during the year 1933-34 as compared with the preceding year was Rs. 25,32,577. The increase in the cost of staff on the Bombay, Baroda and Central India, Madras and Southern Mahratta and North Western Railways is due to the partial restoration of the wage cut.

71. Indianisation.—*State-managed Railways.*—The following table gives a summary of the permanent recruitment made for gazetted ranks in the various departments on State-managed Railways during the year under review :—

Department.	No. of vacancies which occurred in previous years not filled in those years remaining to be filled.	No. of new appointments created during the year.	No. of vacancies which occurred during the year.	No. of appointments abolished during the year.	No. of net vacancies to be filled.	No. of vacancies not filled up during the year.	No. of vacancies actually filled.	Filled by							
								Europeans.	Indians.						
									Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Other classes.	Total.
1	2	3	4	5	6 (a)	7 (a)	8	9	10	11	12	13	14	15	16
1. Agency	..	1	2	3	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	2	..	..	..	2	2	..	..	..	..	..	..	..	..	..
3. Engineering	15	9	19	..	43	43	..	..	..	..	..	..	..	..	..
4. Transportation (Traffic) and Commercial.	10	1	18	..	29	29	..	..	..	..	..	..	..	..	..
5. Transportation (Power) and Mechanical Engineering.	5	3	5	..	13	13	..	..	..	..	..	..	..	..	..
6. Stores Department.	6	..	..	..	6	6	..	..	..	..	..	..	..	..	..
7. Other Departments.	7	2	2	1	10	10	..	..	..	..	..	..	..	..	..
8. Total 1933-34	45	16	46	4	103	103	..	..	..	..	..	..	..	..	..
8. Total 1932-33	7	6	49	2	60	45	15	4	2	1	3	..	1	..	7
9. Percentage of Europeans to number of vacancies filled—															
1933-34							..								
1932-33							36·4								
10. Percentage of Indians to number of vacancies filled—															
1933-34							..								
1932-33							63·6								

(a) See note 3.

NOTE 1.—It is usual to publish this statement in two parts, one showing the permanent vacancies, and the other the total vacancies, whether permanent or temporary, filled during the year. As during the year under report no temporary appointments were made, the statement is published in one part.

NOTE 2.—Since the primary object of this statement is to show the number of vacancies and how they were filled, an officer whose recruitment was arranged for during a particular year has been regarded as having been appointed during that year, even if he happened to join during the ensuing year.

NOTE 3.—As a result of a number of posts being abolished during the years 1931-32 and 1932-33 there was an excess of officers in certain departments and consequently some of the vacancies to be filled during the year were taken as a set off against the excess.

72. It will be noticed from the statement that during the year no appointments were made in the gazetted ranks on State-managed railways, mainly on account of financial stringency and excess of officers in certain departments in consequence of abolition of a number of posts during the years 1931-32 and 1932-33.

73. *Company-managed Railways.*—The following tables give a summary of the recruitment made for the superior services on Company-managed Railways during the year under review: Part I relates to permanent appointments and Part II includes both permanent and temporary appointments. A detailed statement by individual railways will be found in Appendix G of this report.

PART I.

Statement showing the number of PERMANENT vacancies filled in the Superior establishments on (Class I) Company-managed Railways, excluding His Exalted Highness the Nizam's State and Jodhpur Railways during 1933-34.

Department.	No. of vacancies which occurred in previous years not filled in those years remaining to be filled.	No. of new appointments created during the year.	No. of vacancies which occurred during the year.	No. of appointments abolished during the year.	No. of net vacancies to be filled.	No. of vacancies not filled up during the year.	No. of vacancies actually filled.	Filled by							
								Europeans.	Indians.						
									Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Other classes.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Agency	4	2	..	2	4	4	—1	..	..	..	—1	..	..	..	—1
2. Accounts	3	..	5	..	8	4	4	1	2	..	..	..	..	1	3
3. Engineering	22	1	12	4	31	18	10	4	3	3	..	..	..	..	6
4. Transportation (Traffic) and Commercial.	10	..	9	..	19	11	6	2	2	1	..	..	1	..	4
5. Mechanical	5	..	6	1	10	5	5	3	1	..	..	..	..	1	2
6. Stores Department	1	..	1	..	2	1	1	..	1	..	..	..	..	..	1
7. Other Departments	2	2	3	..	7	4	2	1	1	..	..	..	..	..	1
8. Total 1933-34	47	5	36	7	81	†47	27	11	10	4	—1	..	1	2	16
8. Total 1932-33	46	6	39	12	79	*47	26	15	6	1	3	..	1	..	11
9. Percentage of Europeans to number of vacancies filled. 1933-34							40·7								
9. Percentage of Europeans to number of vacancies filled. 1932-33							57·7								
10. Percentage of Indians to number of vacancies filled. 1933-34							59·3								
10. Percentage of Indians to number of vacancies filled. 1932-33							42·3								

PART II.

Statement showing the TOTAL number of vacancies filled in the Superior establishments on (Class I) Company-managed Railways, excluding His Exalted Highness the Nizam's State and Jodhpur Railways during 1933-34.

Department.	No. of vacancies which occurred in previous years not filled in those years remaining to be filled.	No. of new appointments created during the year.	No. of vacancies which occurred during the year.	No. of appointments abolished during the year.	No. of net vacancies to be filled.	No. of vacancies not filled up during the year.	No. of vacancies actually filled.	Filled by							
								Europeans.	Indians.						
									Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Other classes.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Agency	4	2	..	3	3	4	—1	..	..	..	—1	..	..	..	—1
2. Accounts	3	..	5	..	8	4	4	1	2	..	..	..	..	1	3
3. Engineering	23	2	12	8	29	19	10	4	3	3	..	..	..	..	6
4. Transportation (Traffic) and Commercial.	10	..	9	..	19	11	8	2	3	1	1	..	..	..	6
5. Mechanical	5	..	5	3	6	3	3	3	..	..	..	..	1	..	..
6. Stores Department	1	..	2	..	4	3	1	..	1	..	..	..	..	..	1
7. Other Departments	3	2	3	2	6	4	2	1	1	..	..	..	..	..	1
8. Total 1933-34	49	6	36	16	75	48	27	11	10	4	..	..	1	1	16
8. Total 1932-33	53	8	40	27	74	49	25	10	8	1	4	1	1	..	15
9. Percentage of Europeans to number of vacancies filled. 1933-34							40·7								
9. Percentage of Europeans to number of vacancies filled. 1932-33							40·0								
10. Percentage of Indians to number of vacancies filled. 1933-34							59·3								
10. Percentage of Indians to number of vacancies filled. 1932-33							60·0								

*Excludes six vacancies filled by officers of the temporary Establishment as under:—

Agency	1
Accounts	2
Engineering	1
Transportation and Commercial	1
Stores	1
Total	6

† Excludes seven vacancies filled by officers of the temporary Establishment as under:—

Agency	1
Engineering	3
Transportation and Commercial	2
Other Departments	1
Total	7

74. It will be observed from Statement Part I that during the year under review the total number of appointments made in the superior service on Company-managed Railways was 27 of which 11 went to Europeans and 16 to Indians, of whom 10 were Hindus, 4 Muslims, 1 Indian Christian and 2 other classes, one appointment of an Anglo-Indian was reduced. The net total number of vacancies filled, permanent or temporary, was 27 of which 11 went to Europeans. The total actual appointments filled by Indians were 16, of which 10 were Hindus, 4 Muslims, 1 Indian Christian and 1 of other classes. The ratio of Indian to European recruitment was 59·3 to 40·7 in respect of permanent appointments and 59·3 to 40·7 in respect of all appointments, whether permanent or temporary. The percentage of Indian recruitment in the principal departments was :—

	Permanent appointments.	Total appointments, permanent or temporary.
	Per cent.	Per cent.
Accounts	75·0	75·0
Engineering	60·0	60·0
Transportation (Traffic) and Commercial	66·7	75·0
Transportation (Power) and Mechanical Engineering	40·0	...

Among Indian recruits the proportionate recruitment from each community was as shown below :—

	Permanent vacancies.	Total vacancies.
	Per cent.	Per cent.
Hindus	62·5	62·5
Muslims	25·0	25·0
Anglo-Indians and domiciled Europeans	6·25	...
Indian Christians	6·25	6·25
Other classes	12·5	6·25

During the current year, the position as regards Indianisation of Superior Services on Company-managed Railways was reviewed and the desirability of advancing the ratio of Indian recruitment to 75 per cent. of the total vacancies was again impressed upon these Railway Administrations.

75. *Review of the progress made since 1925.*—The following statements will throw further light on the progress made in Indianisation and in the recruitment of the various communities both on State-managed and Company-managed Railways since 1925, as reflected in the relative strength of Europeans and Indians belonging to the various communities : Part I relates to superior staff and Part II to subordinate staff on scales of pay rising to Rs. 250 and over.

PART I.

Statement of gazetted officers on State-managed Railways and Officers of corresponding rank on Company-managed (Class I) Railways (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 1st April 1925, 31st March 1933 and 31st March 1934.

1st April 1925.

Name of Railway.	Europeans.	Indians. Hindus.	Muslims.	*Anglo-Indians.	*Sikhs.	*Indian Christians.	*Other classes.	Total.	Total number on the Railway (columns 2 *plus* 9).
1	2	3	4	5	6	7	8	9	10
State-managed Railways.									
Burma	90	3	..	..	..	..	12	15	105
Eastern Bengal	79	31	3	..	..	..	12	46	125
East Indian	227	49	12	..	..	..	26	87	314
Great Indian Peninsula	175	18	5	..	..	..	23	46	221
North Western	192	60	13	..	..		28	101	293
Railway Board and Miscellaneous Offices.	59	8	3	..	..	..	14	25	84
TOTAL	822	169	36	..		..	115	320	1,142
Company-managed Railways.									
Assam Bengal	52	6	1	..	..	..	2	9	61
Bengal Nagpur	170	27	5	..	..	..	19	51	221
Bengal and North-Western	55	3	1	..	..		..	4	59
Bombay, Baroda and Central India	159	14	..	..	..	..	21	35	194
Madras and Southern Mahratta	122	15	1	..	..	..	6	22	144
Rohilkund and Kumaon	12	1	..	..	..	..	..	1	13
South Indian	93	17	1	..	..	..	3	21	114
TOTAL	663	83	9	..	..	..	51	143	806
GRAND TOTAL	1,485	252	45	..	..	..	166	463	1,948

31st March 1933.

Name of Railway.	Europeans.	Indians. Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Other classes.	Total.	Total number on the Railway (columns 11 *plus* 18).
1	11	12	13	14	15	16	17	18	19
State-managed Railways.									
Burma	82	4	1	9	..	..	7	21	103
Eastern Bengal	§71	§46	5	10	2	2	1	§66	§137
East Indian	189	74	13	37	2	2	2	130	319
Great Indian Peninsula	§155	§33	11	10	..	5	5	§64	219
North Western	138	78	20	14	8	4	..	124	262
Railway Board and Miscellaneous Offices.	§41	11	§7	5	..	..	2	§25	§66
TOTAL	§676	§246	§57	85	12	13	17	§430	1,106
Company-managed Railways.									
Assam Bengal	42	17	4	8	1	..	..	30	72
Bengal Nagpur	§131	40	7	15	2	1	2	67	§198
Bengal and North-Western	59	6	3	2	..	..	..	11	70
Bombay, Baroda and Central India	123	31	3	4	2	3	8	51	174
Madras and Southern Mahratta	103	27	..	8	2	2	4	43	146
Rohilkund and Kumaon	11	2	2	..	..	..	..	4	15
South Indian	77	43	1	8	..	1	..	53	130
TOTAL	§546	166	20	45	7	7	14	259	§805
GRAND TOTAL	§1,222	§412	§77	130	19	20	31	§689	§1,911

31st March 1934.

Name of Railway.	Europeans.	Indians. Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Other classes.	Total.	Total number on the Railway (columns 20 *plus* 27).
1	20	21	22	23	24	25	26	27	28
State-managed Railways.									
Burma	82	3	..	10	..	..	7	20	102
Eastern Bengal	56	42	6	11	2	3	1	65	121
East Indian	174	78	14	34	3	2	2	133	307
Great Indian Peninsula	145	36	11	10	..	7	6	70	215
North Western	136	80	22	14	10	5	..	131	267
Railway Board and Miscellaneous Offices.	38	10	6	6	..	..	2	24	62
TOTAL	631	249	59	85	15	17	18	443	1,074
Company-managed Railways.									
Assam Bengal	39	15	5	7	1	..	..	28	67
Bengal Nagpur	125	42	7	14	2	1	2	68	193
Bengal and North-Western	59	7	4	2	..	..	..	13	72
Bombay, Baroda and Central India	123	32	3	2	1	3	7	48	171
Madras and Southern Mahratta	96	27	..	6	2	3	5	43	139
Rohilkund and Kumaon	10	2	3	..	..	..	..	5	15
South Indian	73	45	1	9	..	1	..	56	129
TOTAL	525	170	23	40	6	8	14	261	786
GRAND TOTAL	1,156	419	82	125	21	25	32	704	1,860

Statement showing the percentages of the relative strength of Europeans and Indians of various communities.

			1925.*	1933.	1934.
Europeans		State-managed Railways.	71·98	§61·12	58·75
		Company-managed Railways.	82·26	§67·83	66·79
		TOTAL	76·23	§63·95	62·15
Indians	Hindus	State-managed Railways.	14·80	§22·24	23·19
		Company-managed Railways.	10·30	§20·62	21·63
		TOTAL	12·94	§21·56	22·53
	Muslims	State-managed Railways.	3·15	§5·15	5·49
		Company-managed Railways.	1·12	2·48	2·93
		TOTAL	2·31	§4·03	4·41
	Anglo-Indians	State-managed Railways.	*	7·69	7·91
		Company-managed Railways.	*	§5·59	5·09
		TOTAL	*	6·80	6·72
Indians—*concld.*	Sikhs	State-managed Railways.	*	1·08	1·40
		Company-managed Railways.	*	0·87	0·76
		TOTAL	*	0·99	1·13
	Indian Christians	State-managed Railways.	*	1·18	1·58
		Company-managed Railways.	*	0·87	1·02
		TOTAL	*	1·05	1·34
	Other classes	State-managed Railways.	*10·07	1·54	1·68
		Company-managed Railways.	*6·32	1·74	1·78
		TOTAL	*8·52	1·62	1·72
TOTAL		State-managed Railways.	28·02	§38·88	41·25
		Company-managed Railways.	17·74	§32·17	33·21
		TOTAL	23·77	§36·05	37·85

* Anglo-Indians, Sikhs, and Indian Christians included in "Other classes" in 1925.

§ Revised figures.

PART II.

Statement of subordinates on scales of pay rising to Rs. 250 per mensem and over on Class I Railways (excluding H. E. H. the Nizam's State and Jodhpur Railways), on the 1st April 1925, 31st March 1933 and 31st March 1934.

1st April 1925

Name of Railway.	Europeans.	Indians. Hindus.	Indians. Muslims.	Indians. †Anglo-Indians.	Indians. †Sikhs.	Indians. †Indian Christians.	Indians. †Other classes.	Indians. Total.	Total number on the Railway (columns 2 plus 9).
1	2	3	4	5	6	7	8	9	10
State-managed Railways.									
Burma	28	83	9	..	..	..	198	290	318
Eastern Bengal	143	106	5	..	..	..	163	274	417
East Indian	859	300	25	..	..	..	789	1,114	1,973
Great Indian Peninsula	286	125	29	..	..	..	803	957	1,243
North Western	401	328	123	..	..	..	378	829	1,230
Railway Board and miscellaneous offices.	*	*	*	*	*	*	*	*	*
TOTAL	1,717	942	191	..	..	..	2,331	3,464	5,181
Company-managed Railways.									
Assam Bengal	22	23	4	..	..	..	46	73	95
Bengal Nagpur	333	140	13	..	..	..	403	556	889
Bengal and North-Western	31	15	2	..	..	..	59	76	107
Bombay, Baroda and Central India	155	253	25	..	..	..	506	784	939
Madras and Southern Mahratta	85	31	1	..	..	...	173	205	290
Rohilkund and Kumaon	6	5	1	..	..	..	13	19	25
South Indian	63	73	2	..	..	..	158	233	296
TOTAL	695	540	48	..	..	..	1,358	1,946	2,641
GRAND TOTAL	2,412	1,482	239	..	..	..	3,689	5,410	7,822

31st March 1933

Name of Railway.	Europeans.	Indians. Hindus.	Indians. Muslims.	Indians. Anglo-Indians and domiciled Europeans.	Indians. Sikhs.	Indians. Indian Christians.	Indians. Other Classes.	Indians. Total.	Total number on the Railway (columns 11 plus 18).
1	11	12	13	14	15	16	17	18	19
State-managed Railways.									
Burma	24	§89	9	§239	§12	§14	§41	404	428
Eastern Bengal	70	147	9	174	3	2	4	339	409
East Indian	518	451	49	909	12	14	5	1,440	1,958
Great Indian Peninsula	270	231	34	647	14	89	89	1,104	1,374
North Western	§369	330	184	357	88	14	36	1,009	§1,378
Railway Board and miscellaneous offices.	2	§142	§25	28	§11	3	§3	§212	§214
TOTAL	§1,253	§1,390	§310	§2,354	§140	§136	178	§4,508	§5,761
Company-managed Railways.									
Assam Bengal	17	32	3	37	2	1	3	78	95
Bengal Nagpur	205	197	17	398	13	10	3	638	843
Bengal and North-Western	17	20	9	56	1	1	..	87	104
Bombay, Baroda and Central India	145	304	31	329	4	43	117	828	973
Madras and Southern Mahratta	81	48	..	177	..	4	8	237	318
Rohilkund and Kumaon	6	3	1	9	..	..	..	13	19
South Indian	41	88	6	159	..	7	1	261	302
TOTAL	512	692	67	1,165	20	66	132	2,142	2,654
GRAND TOTAL	§1,765	§2,082	§377	§3,519	§160	§202	310	§6,650	§8,415

31st March 1934

Name of Railway.	Europeans.	Indians. Hindus.	Indians. Muslims.	Indians. Anglo-Indians and domiciled Europeans.	Indians. Sikhs.	Indians. Indian Christians.	Indians. Other Classes.	Indians. Total.	Total number on the Railway (columns 20 plus 27).
1	20	21	22	23	24	25	26	27	28
State-managed Railways.									
Burma	25	90	10	225	13	14	40	392	417
Eastern Bengal	63	142	9	169	4	3	3	330	393
East Indian	477	458	53	921	17	7	5	1,461	1,938
Great Indian Peninsula	252	225	35	614	10	100	77	1,061	1,313
North Western	333	337	181	352	92	23	33	1,018	1,351
Railway Board and miscellaneous offices.	1	143	29	27	12	4	3	218	219
TOTAL	1,151	1,395	317	2,308	148	151	161	4,480	5,631
Company-managed Railways.									
Assam Bengal	17	34	4	38	2	1	3	82	99
Bengal Nagpur	181	201	19	395	16	12	6	649	830
Bengal and North-Western	16	20	9	58	1	1	..	89	105
Bombay, Baroda and Central India	139	300	35	317	4	42	119	817	956
Madras and Southern Mahratta	68	51	..	184	..	4	6	245	313
Rohilkund and Kumaon	7	2	1	10	..	..	1	14	21
South Indian	39	90	6	159	..	10	1	266	305
TOTAL	467	698	74	1,161	23	70	136	2,162	2,629
GRAND TOTAL	1,618	2,093	391	3,469	171	221	297	6,642	8,260

Statement showing the percentages of the relative strength of Europeans and Indians of various communities.

			1925.	1933.	1934.
Europeans		State-managed Railways.	33·14	§21·75	20·42
		Company-managed Railways.	26·32	19·29	17·76
		TOTAL	30·84	§20·97	19·58
Indians	Hindus	State-managed Railways.	18·18	§24·13	24·80
		Company-managed Railways.	20·44	26·08	26·55
		TOTAL	18·95	§24·74	25·36
	Muslims	State-managed Railways.	3·69	§5·38	5·63
		Company-managed Railways.	1·82	2·52	2·82
		TOTAL	3·05	4·48	4·73
	Anglo-Indians	State-managed Railways.	†	§40·86	40·95
		Company-managed Railways.	†	43·89	44·16
		TOTAL	†	§41·82	41·97
Indians—*concld.*	Sikhs	State-managed Railways.	†	§2·43	2·64
		Company-managed Railways.	†	0·75	0·88
		TOTAL	†	1·91	2·08
	Indian Christians	State-managed Railways.	†	§2·36	2·68
		Company-managed Railways.	†	2·49	2·66
		TOTAL	†	§2·40	2·67
	Other Classes	State-managed Railways.	†44·99	§3·09	2·88
		Company-managed Railways.	†51·42	4·98	5·17
		TOTAL	†47·16	3·68	3·61
	TOTAL	State-managed Railways.	66·86	§78·25	79·58
		Company-managed Railways.	73·68	80·71	82·24
		TOTAL	69·16	§79·03	80·42

* Not available. † Anglo-Indians, Sikhs, and Indian Christians included in "Other classes" in 1925. § Revised figures.

76. It will be observed that the Indian element in the superior services has risen from 28·02 per cent. on State-managed and 17·74 per cent. on Company-managed Railways in 1925 to 41·25 per cent. on State-managed and 33·21 per cent. on Company-managed Railways in 1934 by a corresponding reduction in the European element. Among the Indians the percentage increase by communities in 1934 as compared with 1925 is shown below :—

	State-managed.		Company-managed.	
	Percentages.		Percentages.	
	1925.	1934.	1925.	1934.
Hindus	14·80	23·19	10·30	21·63
Muslims	3·15	5·49	1·12	2·93
Anglo-Indians	*	7·91	*	5·09
Sikhs	*	1·40	*	0·76
Indian Christians	*	1·58	*	1·02
Other classes	10·07*	1·68	6·32*	1·78

* Anglo-Indians, Sikhs and Indian Christians included under "other classes" in 1925.

77. Turning to the subordinate staff on scales of pay rising to Rs. 250 per mensem and over, the corresponding figures are as under :—

	State-managed.		Company-managed.	
	Percentages.		Percentages.	
	1925.	1934.	1925.	1934.
Europeans	33·14	20·42	26·32	17·76
Indians—				
Hindus	18·18	24·80	20·44	26·55
Muslims	3·69	5·63	1·82	2·82
Anglo-Indians	*	40·95	*	44·16
Sikhs	*	2·64	*	0·88
Indian Christians	*	2·68	*	2·66
Other classes	44·99*	2·88	51·42*	5·17
Total Indians	66·86	79·58	73·68	82·24

* Anglo-Indians, Sikhs and Indian Christians included under "other classes" in 1925.

78. Representation of Minority Communities in Railway Services.— It was mentioned in the last year's report that the Railway Board had submitted to the Government of India their proposals on the recommendations made by the officer who had been placed on special duty in 1931 in connection with the representation of minority communities in the subordinate railway

Damage by earthquake to the European Children's School at Jamalpur.

services. During the year under review, decision was taken on Recommendations Nos. 1 to 6, 14 and 15 made by Mr. Hassan in his report on the representation of Muslims and other minority communities in the subordinate railway services and instructions were issued to railway administrations. Recommendations Nos. 7 to 13 were still under consideration.

Moreover the Government had under examination the policy which has been followed since 1926 of reserving a certain percentage of direct appointments to the railway services for the redress of communal inequalities. Shortly after the close of the year under review, revised principles were formulated and orders were issued by the Government of India, mention of which will be made in the next year's report.

The " Rules for the recruitment and training of apprentice mechanics and trade apprentices in the mechanical workshops of State-managed railways " were also amended so as to make provision for the redress of communal inequalities.

79. **Training of Staff.**—(i) *Superior Staff.*—In paragraph 80 of the report for the last year, it was stated that the question of the most suitable method of training of officers and probationers consequent upon the closing of the Railway Staff College, Dehra Dun, had been engaging the attention of the Railway Board. A little after the close of the year under review, the Railway Board addressed the State-managed Railways on the subject asking them to draw up a programme of lectures in order to afford a basis for imparting to probationary officers a sound theoretical knowledge of their work and to submit a report on the action taken by them in this matter. On the receipt of these reports, the Railway Board will, if necessary, consider the question further.

(ii) *Area Schools.*—A brief resumé of the activities during the year of the Area Schools engaged in the training of railway staff is given below :—

(*a*) *Railway School of Transportation, Chandausi.*—During the year under review, the activities of the Railway School of Transportation, Chandausi, increased. The number of students attending courses shows an increase over last year by about 50 per cent.

During the year 1933-34, the courses of instruction were on much the same lines as in the previous year. The switchmen's course which was held at the Asansol School was transferred to Chandausi from July 1933. A course for Senior Guards of the Moradabad Division qualifying for promotion to Assistant Station Masters was also held at the School during the year. Owing to heavy demands for Assistant Station Masters, more probationary Assistant Station Masters courses were held this year. The number of students also increased in this case. Refresher courses for Assistant Station Masters continued to be held regularly. There were 25,490 student days for 667 students in attendance during 1933-34 as compared with 11,692 student days for 421 students for 1932-33. Owing to the increase in student days, the cost per student day has come down to Rs. 2-7 from Rs. 5 for the year 1932-33.

(*b*) *Asansol Training School.*—As a measure of economy Asansol Training School was closed in the month of October 1933 by the transfer of the training classes held at this school to other schools on the East Indian Railway. The courses of training for Switchmen were transferred to Chandausi and the courses of the Power and Rolling Stock classes to Jamalpur. The Power and Rolling Stock classes which were opened at Jamalpur in December 1933 had to be closed on the 15th January 1934 owing to the earthquake and were re-opened again in February. These courses have been improved considerably by including lectures from the trained staff of the Technical School, Jamalpur. The staff who attend the courses are accommodated in the existing hostels.

It is anticipated that a saving of rupees five or six thousands will be effected by the closing of the Training School at Asansol.

(c) *Walton Training, Kot Lakhpat, North Western Railway.*—During the period under report the School continued the training of staff for the North Western Railway. The total number attending the school in 1933-34 was 1,420 as compared with 1,230 in the previous year. The increase is partly due to the recall from the waiting list, of ex-Commercial Group Students who were recruited, trained and passed in 1931 but who could not then be provided for due to retrenchment, and to the re-introduction during this period of courses for Senior Assistant Station Masters, Station Masters and Traffic Inspectors and of Special Courses for the training of staff to be selected as Instructors.

The training of Line Staff, both senior and junior has been actively pursued, and is reported to have been of benefit to the administration.

Two Probationary Assistant Transportation Officers had their final examination conducted at the school and the progress of training and the work done by Probationer Officers and Student Engineers continued to be supervised.

80. Improvement in the service conditions of the Staff.—*Hours of Employment Regulations.*—The question of the application of the Hours of Employment Regulations to the Burma and the Company-managed railways continued to engage the attention of the Railway Board during the period under review and the position was examined early in February 1934, when it was decided that the extension of these regulations to railways on which they have not so far been made applicable, should, in view of the continued unsatisfactory financial position, be deferred for at least another year. While communicating this decision, these railway administrations were asked to continue to apply the provisions of the regulations where this could be done without incurring material additional expenditure. At the same time the Agents of the Madras and Southern Mahratta and Bombay, Baroda and Central India Railways were asked for their views on the possibility of introducing the Hours of Employment Regulations on their systems from the 1st April 1935 together with a detailed statement of the cost, both capital and recurring, which they considered would be involved under present conditions of traffic. The question of extending the application of the Hours of Employment Regulations to these two railways is being further considered by the Railway Board in the light of the replies which have been received.

81. Welfare.—(i) *Staff Benefit Fund.*—The Staff Benefit Funds which have been established on all State-managed and Company-managed Railways continued to function during the period under review. The reports received from these railways indicate that the establishment of these funds has contributed usefully towards providing amenities and affording certain forms of relief to the staff.

(ii) *Railway Sports.*—The sixth annual Inter-Railway Athletic Tournament was held in the Irwin Amphitheatre at New Delhi on the 21st and 22nd March 1934. The Bombay, Baroda and Central India, Eastern Bengal, Madras and Southern Mahratta, North Western, South Indian, His Exalted Highness the Nizam's State Railways and the Railway Board entered their teams. The tournament was won by the North Western Railway for the sixth year in succession, the Eastern Bengal Railway being the runners-up.

For the field game a hockey tournament was decided upon which was held in Delhi from the 19th to the 24th March 1934. The following teams competed:—Bombay, Baroda and Central India, East Indian, Great Indian Peninsula, Madras and Southern Mahratta and North Western Railways. The East Indian Railway won the tournament, the North Western Railway being the runners-up.

82. Report of the Royal Commission on Labour.—Those recommendations of the Royal Commission on Labour affecting railways which have

not hitherto been disposed of continued to engage the attention of the Railway Board who came to certain provisional conclusions which were referred to the Agents of principal railways for the expression of their views. The recommendations of the Agents of railway administrations are under consideration.

83. Economies in staff charges.—*Reduction in the strength of the subordinate and inferior staff and of workshop employees.*—As adumbrated by the Hon'ble Member for Commerce and Railways and the Chief Commissioner of Railways in their speeches in introducing the Railway Budgets for 1934-35, no block retrenchments of any magnitude were effected on railways during the period under review though minor measures of retrenchment continued in connection with the "Job-analysis" investigations that are being conducted on principal railways. For a detailed report regarding the "Job-analysis" investigations on railways, paragraph 12 at page 8 of this report headed "Pope's investigations" may be seen.

(i) *Emergency cut in pay.*—It was mentioned in the last year's report that an emergency reduction in pay, not exceeding 5 per cent., would apply during 1933-34 in respect of all Government servants including those of the Railway Department. It was decided during the year under review to continue this emergency reduction in pay during the year 1934-35.

The Company-managed Railways adopted the same procedure.

(ii) *Revision of the scales of pay of future entrants into the Superior and Subordinate services.*—Mention was made in the last year's report of the proposed introduction during 1933-34 of revised scales of pay for future entrants into the Superior Services. These scales of pay, which are materially lower than those hitherto in force, were finally announced in October 1933. Revised scales of pay for the subordinate services were under examination in 1933-34 with the intention of introducing them during the year 1934-35.

84. Security of service.—*Rules regarding the discharge and dismissal of State Railway non-gazetted Government servants.*—This subject was last referred to in paragraph 99 of the Report by the Railway Board on Indian Railways for the year 1929-30, in which the circumstances leading to the issue of the present rules, in November 1929, were explained.

Subsequently, in March 1930, the All-India Railwaymen's Federation addressed the Railway Board and made certain suggestions for the amendment of these rules. After consideration of the suggestions, in consultation with the Agents of State-managed Railways, the Railway Board, in addition to certain minor amendments, extended the application of the rules relating to discharge to temporary non-gazetted staff borne on the non-pensionable establishment, provided that they had completed 3 years' continuous service, while the rules relating to dismissal were similarly extended to temporary staff who had not completed 3 years' continuous service. Provision was also made in the rules to cover cases of inefficiency, whether due to incompetency, insolvency, physical unfitness or any other cause, so that leave may be given to an employee up to the amount admissible as may be decided by the sanctioning authority prior to discharge and that during such leave every effort may be made to find other suitable employment for him.

During the year under review the Railway Board, decided to extend the right of appeal against discharge from service in respect of the following categories of staff:—

(i) Labourers employed in a State Railway Workshop or any other branch of State Railway service with less than 3 years' continuous service: and

(ii) temporary non-gazetted employees borne on a non-pensionable establishment of a State Railway or in other offices under the administrative control of the Railway Board or of the Financial Commissioner of Railways with less than 3 years' continuous service.

Moreover State-managed Railways were asked to submit reports on the working of the rules regulating the discharge and dismissal of State Railway non-gazetted Government servants and to furnish their recommendations in regard to certain proposals which the Board have had under contemplation for the amendment of these rules in connection with the recommendations of the Royal Commission on Labour. This matter is at present under the consideration of the Railway Board.

85. **Meetings with the All-India Railwaymen's Federation.**—During the period under review the Railway Board had one half-yearly meeting with the representatives of the All-India Railwaymen's Federation in November 1933. At this meeting the following main subjects were discussed at some considerable length. The suggestions put forward by the Federation are at present under the consideration of the Railway Board :—

(i) Pass Rules;
(ii) Medical Examination Rules;
(iii) Education Assistance Rules; and
(iv) Trade Disputes Act.

CHAPTER VII.

MISCELLANEOUS.

86. Passenger train services and travel amenities.—Improvements in passenger train services and station arrangements continued to receive the careful consideration of all Railway Administrations. The programme for providing up to date coaching stock and improving the existing stock wherever necessary was adhered to. Attention was also given, as funds permitted, to improvements in the arrangements for the supply of cool drinking water to passengers, running of restaurant car services, provision of refreshment rooms, waiting rooms and various other minor details such as benches on station platforms and in waiting halls, etc., for the comfort and convenience of the travelling public. In the following paragraphs, particulars of some of the measures adopted by the principal railways during the year under review, are briefly outlined :—

(i) *Train services.*

Assam Bengal Railway.—An additional mixed train each way was introduced between Chandpur and Noakhali from 15th January, 1934.

Bengal and North-Western Railway.—From 1st October, 1933, two light passenger trains running between Gorakhpur and Nowgarh were extended to Barhni. The earthquake on the 15th January, 1934, seriously dislocated the train services in the affected area for some considerable time, resulting in the train mileage on 31st March, 1934, being lower than on the corresponding date of the previous year, as shown below :—

Train Miles.	31st March, 1933.	31st March, 1934.
Express	1,058	1,058
Passenger	10,490	9,676
Mixed	4,741	3,933

Bengal Nagpur Railway.—The mileage run daily by passenger trains, other than mail and express, increased from 9,288 to 10,024, *viz.*, by 736 miles; by shuttle or other local trains (other than suburban) from 596 to 918, *viz.*, by 322 miles and by suburban trains from 405 to 408, whereas the mileage run daily by mixed trains decreased from 876 to 692, *viz.*, by 184 miles.

Two passenger trains running between Barka Kana and Tatanagar Junction were extended to and from Howrah, and two between Vizagapatam Town and Parvatipuram were extended to and from Raipur; the former to provide an accelerated service for passengers travelling between Howrah and Ranchi and the latter to provide a daylight service on the Raipur-Vizianagram line which permitted of the discontinuance of two mixed trains between Kantabanji and Raipur.

Two mixed trains running between Anuppur and Manendragarh were extended to and from Chirmiri. Two local passenger trains between Bhadrak and Khargpur, two shuttles between Nagpur and Kamptee, one local between Adra and Asansol and two shuttles between Midnapore and Garbeta were introduced for the convenience of passengers attending courts, students and business men.

The speed of the Nagpur-Howrah passenger was accelerated by 24 minutes to facilitate an East Indian Railway connection at Howrah. Four passenger trains on the Bilaspur-Katni section were speeded up each by about an hour and the Chakradharpore-Howrah passenger was accelerated by 1 hour and 13 minutes. The Up and Down Gondia-Nagpur locals were accelerated by an hour in order to provide a more suitable service for passengers desiring to attend courts.

Bombay, Baroda and Central India Railway.—The daily average train miles in 1933-34 as compared with 1932-33 increased by 420 on the broad gauge and decreased by 1,218 miles on the metre gauge. The increase on the broad gauge was chiefly of the electric train service, consequent on the introduction of normal train services from 1st April, 1933, on the Bandra Substation, which was put right after a serious damage by fire. The decrease on the metre gauge was due chiefly to the handing over of the Gaekwar's Mehsana Railway to the Baroda Government from 1st April, 1933.

From 15th April, 1933, two trains which were previously split up and run as local trains between Sirsa and Hissar and Hissar and Rewari, commenced to run as one through passenger train between Sirsa and Rewari. Two local fast passenger trains running between Mehsana and Palanpur were extended to run to and from Abu Road. Two mixed trains running between Dholka and Sabarmati were extended to and from Ahmedabad.

The sentinel coach running on the Abu Road-Palanpur section was withdrawn and put on to run three trips each way between Indore and Mhow. The afternoon sentinel coach from Ajmer to Kishnagarh and back was discontinued and ran instead to and from Nasirabad.

Burma Railways.—With a view to effect more suitable connections with branch line trains and afford a better service to local passengers in the Toungoo and Mandalay districts, the timings of certain local mixed trains on the Rangoon-Mandalay main line were revised. With the introduction of YC engines, the timings of two mixed trains on the Rangoon-Martaban section were accelerated. The timings of all mixed trains on the Rangoon-Prome section were also accelerated. Consequent on the opening of the Ava bridge from 1st February, 1934, a revised accelerated train service on the Mandalay-Myitkyina and Mandalay-Ye-U sections was brought into force. The revised service shortened the time taken between Mandalay and Myitkyina by about $3\frac{3}{4}$ hours in the up and 3 hours in the down directions. The local trains which had been running between Mandalay and Amarapura shore were extended to run between Mandalay and Ywataung. A new fast local train each way between Mandalay and Kin-U was introduced to meet motor bus competition. Two local trains were extended to run between Rangoon and Mingaladon Cantonment instead of from and to Kanbe.

Eastern Bengal Railway.—With effect from 1st October, 1933, an ordinary passenger train running between Calcutta and Ishurdi was converted into a fast passenger on Saturdays, for the convenience of week-end passengers, with branch connections at Ranaghat, Poradaha and Ishurdi. On the broad gauge, the train mileage was increased by the running of sixteen additional trains on the various sections and fourteen additional trains a day on the suburban sections. On the metre gauge, one train each way was put in service between Santahar and Teesta Mukh Ghat to connect with the up and down Darjeeling mails.

East Indian Railway.—The total mileage of mail, express and other passenger trains including mixed trains, suburban trains and shuttle services was 1,292,332 during the month of March, 1934, as compared with 1,290,491 in March 1933, amounting to an increase of 61 train miles a day.

Great Indian Peninsula Railway.—There was an increase of 123 passenger train miles on 31st March, 1934, as compared with the 31st March, 1933. This increase was due mainly to the conversion of a parcel train into a combined parcel and passenger train and the introduction of two additional trains between Bombay and Kalyan and one additional train between Bombay and Kurla *viâ* the Harbour Branch.

Jodhpur Railway.—From the 15th June, 1933, two mixed trains were introduced between Mirpur-Khas and Hyderabad.

Madras and Southern Mahratta Railway.—On 31st March, 1934, there was a decrease of 672 train miles on the broad and 486 miles on the metre gauges as compared with 31st March, 1933. The cancellation of two passenger trains between Bezwada and Rajahmundry, two between Madras

and Gudur, two between Arkonam and Katpadi and two between Nidadavolu and Narasapur contributed chiefly to the decrease in the mileage on the broad gauge. In addition, certain suburban and branch line trains which were not well patronised were also cancelled. On the metre gauge, two passenger trains between Pakala and Madnapalle Road, two between Guntakal and Bellary, two between Hubli and Dharwar, two between Miraj and Belgaum and two between Donakonda and Narasaravupet were cancelled. The up and down express trains between Poona and Kolhapur were cancelled in view of the running of two through trains to accelerated timings. Some branch line trains that were not well patronised were also cancelled.

His Exalted Highness the Nizam's State Railway.—On 31st March, 1934, there was an increase of 215 and 78 train miles on the broad and metre gauges respectively as compared with the 31st March, 1933. On the broad gauge, one mixed train each way between Secunderabad and Kazipet and another between Dornakal and Bezwada were converted into passenger trains. On the metre gauge also, certain mixed trains were converted into passenger trains. The shuttle service was increased by the introduction of one steam coach train each way on the Purna-Hingoli branch and the provision of an additional shuttle train each way on the Dronachellam-Kurnool section.

North Western Railway.—As a result of the steps taken towards economy a reduction of 20 passenger trains on the broad gauge and 6 on the narrow gauge was effected, as compared with the figures on 31st March, 1933. The number of mixed and shuttle trains were however increased by 26 and 6 respectively.

South Indian Railway.—Fourteen trains on the metre gauge and six on the broad gauge, were newly introduced and the services of four trains on the metre gauge and two on the broad gauge were extended. The speed of the up and down Trivandrum express trains was accelerated by eliminating stops at unimportant stations, thereby saving 45 minutes in each direction. The provision of additional trains to serve intermediate stations where express trains did not stop, and the introduction of additional trains on certain sections to combat motor bus competition were responsible for an increase of 425 train miles on 31st March, 1934, as compared with 31st March, 1933.

(ii) *Improvements in the design of and accommodation in passenger carriages.*

Assam Bengal Railway.—All passenger vehicles are now fitted with electric lights. Out of 513 third and intermediate class carriages, including composites, 501 are fitted with latrines. Of the 12 remaining carriages, 3 are provided with latrines in the ladies' compartments. Of the 501 carriages fitted with latrines, 497 are provided with water tanks. 35 intermediate and third class compartments in use for ladies are now fitted with illuminated panels.

Bengal and North-Western Railway.—Improved types of seats and cushions and fan regulators were provided in upper class carriages. The lavatory compartments of the new third class carriages were being fitted with double water cocks.

Bombay, Baroda and Central India Railway.—The policy of replacing old type vehicles by modern electrically-lit stock of the latest standard and elimination of four-wheeled stock was continued. The new type lower class coaches were provided with larger latrines, while improvements of the latrines in the existing coaches continued to be made. All lower class latrines are being electrically lit and fitted with flushing arrangements, washing taps and coat hooks. All the coaching stock except a few which are not suitable for conversion, were electrically lit. In all first class compartments reading lamps were provided over each berth and the number of fans increased from two to three in large compartments and from one to two in coupé compartments. Combined shower and needle baths were also provided. On the metre gauge, a number of coaches on the block rakes were fitted with axle-driven dynamos so as to ensure adequate lighting.

To mitigate the extreme heat during the hot weather arrangements were made to provide blocks of ice in containers to upper class passengers (on payment) in the Frontier Mails between Delhi and Ratlam. This facility was much appreciated by passengers.

The external lighting provided on one rake on the broad and one on the metre gauge proved satisfactory, especially at stations with short or low level platforms.

Burma Railways.—Improvements were being effected in the lighting of latrines in third class carriages on mail trains by the installation of a light in each latrine.

Eastern Bengal Railway.—The provision of high power lamps, latrines in servants' compartments of upper class carriages and iron enamelled pans and coat hooks in lower class latrines were some of the improvements made. The policy of providing switches near the doors in upper class coaches, to facilitate the lighting up of compartments, on entry, was continued. Switches for lights in servants' compartments of upper class carriages, painting of the face panels of the ladies' compartments of intermediate and third class in blue to facilitate identification, in one coach as an experimental measure, and the diversion of waste water from the wash hand basin into the commodes in certain upper class metre gauge carriages, were among the new measures adopted during the year.

Jodhpur Railway.—Electric lights were being fitted to latrines of lower class carriages. 22 latrines of 12 carriages were enlarged to provide a minimum space of 12 sq. feet. Overhead water tanks were provided in the latrines of four carriages.

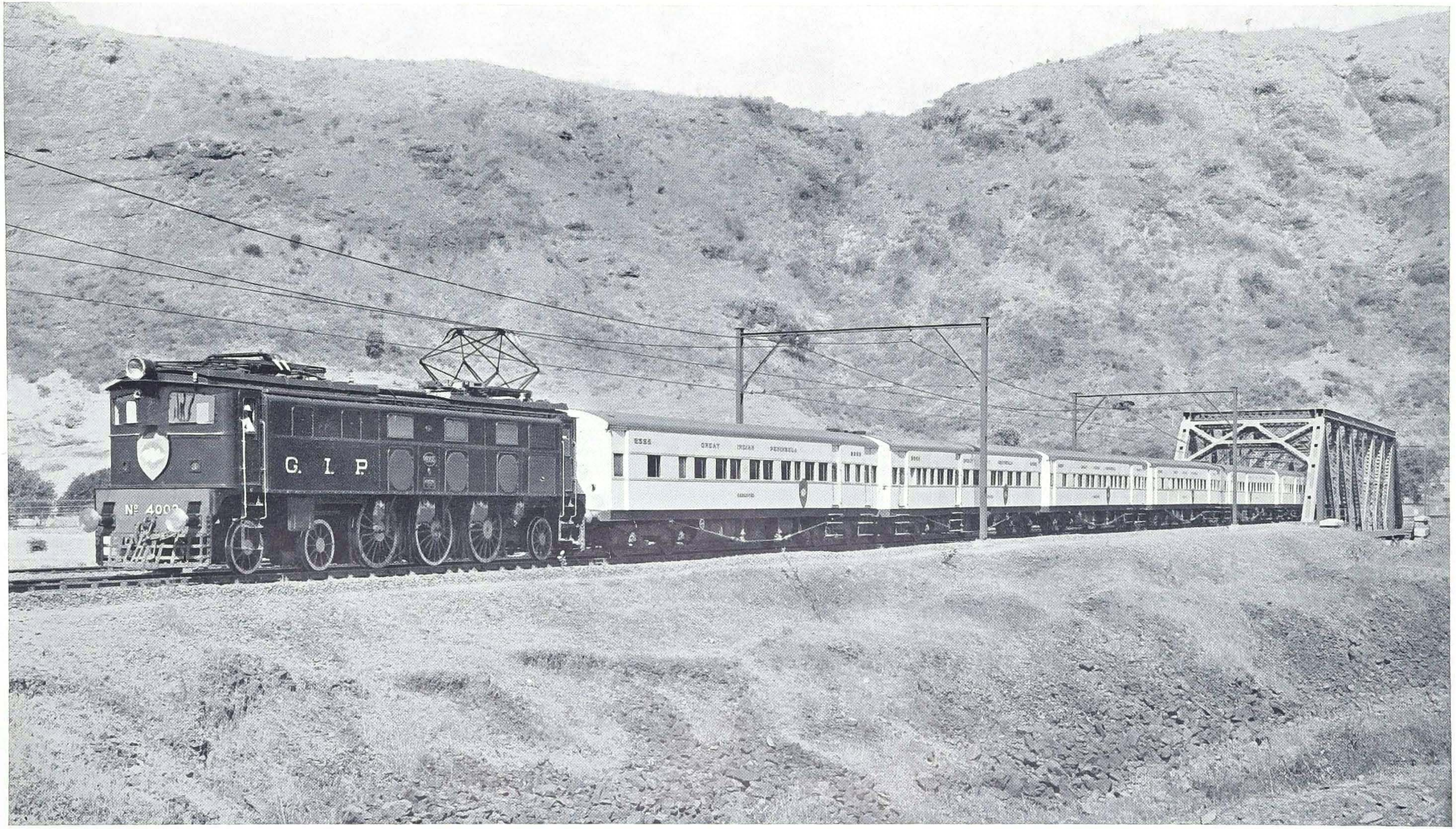
Madras and Southern Mahratta Railway.—In addition to the provision of roof ventilators, enamelled pans were provided in place of cast iron pans in intermediate and third class latrines. In intermediate class latrines folding wash hand basins and mirrors were also provided.

His Exalted Highness the Nizam's State Railway.—All broad and metre gauge bogie carriages were electrically equipped with the exception of three broad and eight metre gauge bogie carriages which were adequately provided with incandescent burners. In eight broad and eighteen metre gauge ordinary carriages, flat gas burners were replaced by incandescent burners. Cast iron coat hooks, corner shelves and inside bolts were being provided in the latrines of third class carriages. An additional tap was provided in the lavatories of first class compartments of new upper class bogie carriages.

North Western Railway.—The programme of upholstering upper berths of intermediate class carriages with imitation leather was almost completed. Improved wider type latrines with high capacity water tanks in lower class carriages were also provided. The provision of electric lights in all passenger stock was completed. Latrines were provided in 102 servants compartments of upper class carriages, 103 latrines in lower class bogie stock were enlarged and 117 latrines of third class carriages were improved.

South Indian Railway.—Nine bogie brake van and thirds on 68 feet underframes were placed in service on the broad gauge and four bogie brake van and thirds were built and placed in service on the metre gauge. These coaches were built to the latest standard designs and provided with up-to-date fittings and appliances. Seven new electric multiple unit coaches were also brought into use on the Madras suburban service. Twelve broad gauge upper class coaches were provided with an improved type of safety catches for the windows. Separate ladies' accommodation was provided in four broad gauge bogie brake van and thirds. These compartments were fitted with window bars and indication boards suitably illuminated at nights. 276 hat pegs were fitted to broad gauge third class and 387 to metre gauge coaches. Notices relating to the refreshment and retiring rooms provided at stations on the railway were placed in 28 broad gauge and 42 metre gauge upper class car-

GREAT INDIAN PENINSULA RAILWAY.



Tourist Special De Luxe Train.

riages. South Indian Railway maps were provided in five broad and ten metre gauge upper class carriages.

(iii) *Supply of drinking water.*

Assam Bengal Railway.—A water tap at Manipur Road and two ground tanks at Sarkarhat and Nazirhat were provided, in addition to nine tube wells sunk at the following stations:—

Bangla.	Ishwarganj.
Ashuganj Ghat.	Nilganj.
Musuli.	Ashuganj Bazar Siding.
Nandail Road.	Jaria-Jhanjail.
Netrakona.	

Bengal and North-Western Railway.—During the hot weather, 92 extra watermen were employed in addition to the permanent strength of 169. Seven additional hand water carts were supplied to the following stations:—

Samastipur . . .	2	Gorakhpur . . .	1
Chupra	1	Darbhanga . . .	2
Mankapur . . .	1		

A deep tube well was sunk at Aunrihar junction for supply of pure water to passengers and two water stands with pipes were provided on the passenger platform at Mashrak.

Bengal Nagpur Railway.—Additional water shelters were provided at Drug, Kargi Road and Adra.

Bombay, Baroda and Central India Railway.—On the broad gauge, as in the last three years, Hindu watermen were concentrated at large stations, where they get adequate opportunity to serve the public. On the metre gauge, travelling Hindu watermen on trains and at stations continued to serve the public satisfactorily. The electric water cooler provided at Ahmedabad worked satisfactorily.

Eastern Bengal Railway.—A water tap was provided at Dalsingpara.

East Indian Railway.—A drinking water well was provided at Firozabad and water taps on platforms at Bijnor and Tundla. In cool spots at important stations, trellis work kiosks were provided to hold *gharras* of drinking water. Drinking water tanks on wheels were provided at certain stations where difficulty was experienced in obtaining refills for the buckets carried by watermen. These arrangements, proving satisfactory, were being extended to other important stations.

Great Indian Peninsula Railway.—A tap was provided on the platform at Kurla station. At Ahmadnagar trellis work for the water shelter designed for eight *chatties* (four for Hindus and four for Mahomedans) was provided.

Madras and Southern Mahratta Railway.—Increased facilities for the supply of drinking water were provided at Bellary, Londa and Bijapur by the provision of water taps.

His Exalted Highness the Nizam's State Railway.—A third class compartment was provided for a waterman during the hot weather daily on all passenger and mixed trains for the supply of drinking water to passengers.

North Western Railway.—A number of tube wells, hand pumps and water shelters were provided at various stations. Hand barrows with *chatties* of cold water for supply to passengers were introduced at principal stations. Travelling watermen were appointed to run on certain day passenger trains to provide water to passengers. Extra water taps were installed on a number of passenger platforms and in third class waiting halls.

Rohilkund and Kumaon Railway.—Four hand carts were supplied to Izatnagar, Bhojeepura, Gola Gokaran Nath, and Lucknow junction (metre gauge) respectively for the supply of water to passengers.

South Indian Railway.—Three hydrants were provided at Coimbatore and two at Tenkasi junction, while two taps were installed at Dindigul and one at Rameswaram. Separate drinking water supply was arranged to the platform hydrants, and the Indian refreshment rooms at Shoranur and Chingleput junctions.

(iv) *Restaurant car services and refreshment rooms.*

Assam Bengal Railway.—A restaurant car was regularly run on the up and down Assam Mails between Hojai and Furkating. On all trains a ready supply of ice, aerated waters, bread, biscuits and cigarettes was made available to passengers.

Bengal and North-Western Railway.—A tea room was opened at Allahabad City.

Bombay, Baroda and Central India Railway.—A broad gauge Indian dining car was provided for use on excursion and pilgrim specials. The provision of hot meals for Hindus and Mahomedans on the Delhi and Kathiawar express trains was continued during the year with undiminished popularity. The combined bogie composite first, second and diner (of European style) continued to run on the main line mail trains between Ajmer and Ahmedabad and on express trains between Delhi and Ahmedabad. The lighting arrangement in the first class refreshment room at Ajmer was improved, by providing five table lamps in place of six wall bracket lights.

Burma Railways.—Of the 21 refreshment rooms, including refreshment rooms on the two ferry steamers at Sagaing and Henzada, which were in service on 31st March, 1933, the one at Sagaing ceased to function on the opening of the Ava bridge. The tea rooms at Martaban for the sale of light refreshments were closed down. At Zibingyi new tea rooms were opened.

Eastern Bengal Railway.—Restaurant cars for upper class passengers generally, were run on the mail trains between Calcutta and Parbatipur. Two Indian refreshment rooms were provided at Ranaghat and Amnura. The Hindu refreshment rooms at Rajbari and Sirajganj Ghat, as well as the Mahomedan refreshment room at Rajbari were closed. On 31st March, 1934, 20 upper class refreshment rooms, 13 others for Hindus and 8 for Mahomedans were functioning.

East Indian Railway.—Three refreshment rooms for Hindus were opened at Gaya, Kiul and Tundla and two for Mahomedans at Kiul and Aligarh. A shed was provided in front of the Mahomedan refreshment room at Bara Banki. The refreshment rooms at Mokameh Ghat, Gaya and Moghal Sarai were improved.

Great Indian Peninsula Railway.—One buffet compartment was provided in the up and down Poona Mails for supply of refreshments to upper class passengers and another for third class passengers. A buffet car for the supply of Indian refreshments and meals to lower class passengers was run on the Grand Trunk Express between Balharshah and Delhi. A compartment was allotted in the up and down Poona express trains for serving tea, coffee, fruit, sweetmeats, etc.

Madras and Southern Mahratta Railway.—On the broad gauge, Indian refreshment cars for Hindus and Mahomedans were run on the express trains between Madras and Bangalore City and Madras and Bezwada and on passenger trains between Madras and Bangalore, Madras and Bezwada and Bezwada and Waltair. On the metre gauge, Indian refreshment cars were run on the mails between Bangalore City and Poona and two passenger trains between Bangalore City and Poona, and Bangalore City and Guntakal.

His Exalted Highness the Nizam's State Railway.—An Indian buffet car with arrangements for the supply of meals and other refreshments to Hindu and Mahomedan passengers was run daily between Secunderabad and Bezwada on two important passenger trains. Four Indian refreshment rooms (two for Hindus and two for Mahomedans) were opened at Kurnool Town, and Purli-Vaijnath during the year.

North Western Railway.—Dining cars were run for Indian passengers on one important up and down passenger trains between Lahore and Delhi and vending cars on the up and down Karachi mails between Lahore and Rohri.

South Indian Railway.—Two Indian light refreshment rooms were opened at Trichur and Quilon during the year.

The statement below shows the number of refreshment rooms on Class I Railways on 31st March, 1934 :—

Railways.	General.	Hindus.	Mahomedans.	Total.
Assam Bengal . . .	17			17
Bengal and North-Western . . .	15	9	9	33
Bengal Nagpur . . .	23	5	5	33
Bombay, Baroda and Central India . .	35	8	5	48
Burma . . .	20	...	...	20
Eastern Bengal	20	13	8	41
East Indian	34	16	16	66
Great Indian Peninsula . . .	34	5	5	44
Jodhpur	2	...	...	2
Madras and Southern Mahratta . .	46	35	7	88
His Exalted Highness the Nizam's State .	15	10	9	34
North Western	58	20	20	98
Rohilkund and Kumaon . . .	3	...	1*	4
South Indian	34	32	6	72

* With separate arrangements for Hindus and Mahomedans.

(v) *Vendors' stalls.*

Assam Bengal Railway.—Six standard tea stalls were provided as follows :—One for Hindus and one for Mahomedans, at Sylhet Bazar; one for Mahomedans each at Chaparmukh, Gauhati and Tinsukia and one for Marwaris at Lumding.

Bengal and North-Western Railway.—Refreshment stalls at Chupra Kacheri, a vendor's shop at Sagauli and tea stalls at Gorakhpur, Sonepore, Savan, Bhatni, Barauni Junction, Muzaffarpur, Samastipur and Darbhanga were provided.

Bengal Nagpur Railway.—Eight tea stalls were provided at Garbeta, Mohuda, Itwari, Raipur, Rourkela, Muniguda, Rayaghada and Jajpur Road. The Hindu and Mahomedan stalls at Gondia were provided with two separate water taps.

Bombay, Baroda and Central India Railway.—A stall was opened at Santa Cruz. The tea stalls in the third class passengers' waiting hall at Ratlam and a stall at Sirsa were improved.

Eastern Bengal Railway.—Vendors' stalls were improved by the provision of chimneys, scullery and water taps at Poradaha, Ishurdi and Katihar.

East Indian Railway.—Vendors' stalls were provided at Bermo, Fatehpur and Kashi, and the stalls at Mokameh Ghat, Gaya and Moghal Sarai were improved.

North Western Railway.—One new stall was opened at Nawabshah. Shelters were provided for the Hindu and Mahomedan tea stalls at Gujranwala Town.

South Indian Railway.—A tea stall was built at Pamban, a fruit stall at Tirumangalam and light refreshment stalls at Hillgrove and Peralam.

(vi) *Waiting rooms for upper class passengers, waiting halls for third class passengers—Benches.*

Assam Bengal Railway.—A first and second class passengers' waiting room was provided at Manipur Road. Two additional benches were provided at Ishwarganj for third class passengers.

Bengal and North-Western Railway.—An upper class waiting room was provided at Siswa Bazar. Two double seated benches were provided each on platforms at Gonda, Mau junction and Aunrihar.

Bengal Nagpur Railway.—The existing waiting hall at Jhalda was improved by walling in the sides to prevent rain water beating through, and a Zenana waiting hall provided. New waiting halls for third class passengers were built at Rupra Road, Lanjigarh Road and Muniguda. The waiting hall at Mandla Fort station was improved by the closing in of two sides and the raising of the floor. The waiting hall at Chhindwara was cemented. One bench was placed on the platform at Bamhnibanjar. Two benches at Drug, one each at Sudamdih and Nagjua and three cement benches at Nainpur, were provided in the third class waiting halls. One bench and two chairs were placed in the intermediate class waiting hall at Sakhigopal.

Bombay, Baroda and Central India Railway.—The waiting room at Broach was improved by providing white tile flooring and dado in the gentlemen's and ladies' lavatories and bath rooms. At Dakor, the third class waiting hall was extended to provide additional shelter for about 100 passengers.

Burma Railways.—A waiting room for first and second class passengers was provided at Myinmu station.

Eastern Bengal Railway.—The general waiting hall at Ranaghat was extended and a new lean to shed provided at Bahadurpur. At Manihari Ghat, a ladies' waiting hall was provided.

East Indian Railway.—Intermediate class waiting rooms were provided at Rampur and Bareilly. The third class passenger hall on the down platform at Benares Cantonment was extended. New waiting halls were built at Fatehpur and Firozabad. Four benches were placed on the station platforms at Taregna and two at Aonla; also two in the third class waiting hall at Hapur.

Great Indian Peninsula Railway.—A covered waiting hall was provided for third class passengers on the narrow gauge platform at Jubbulpore. Six benches were provided at Thakurli station platform. The up and down platforms at Manmad were extended. A roof was built over the third class latrines at Shahabad. A partition was constructed in the pilgrim hall at Kurduwadi to facilitate the movement of passengers. The third class waiting halls at Rohini and Akola were paved with stone.

Jodhpur Railway.—On the platform at Balwara one additional bench was provided.

Madras and Southern Mahratta Railway.—The waiting halls for third class passengers at Gollaprolu, Attili, Viravasaram, Narasapur, Samalkot and Karajgi were extended. New third class waiting halls were provided

Distortion by earthquake of track near Sitamarhi.

at Chiluyur, Pennada Agraharam, Kaldhari, Relangi, Lankalakoderu and Samalkot. A carriage body was provided at Bagewadi to serve as a waiting hall. An additional third class waiting hall was provided at Bangalore City. One bench was provided in the third class waiting room at Thalangai.

His Exalted Highness the Nizam's State Railway.—In addition to the provision of a flush latrine in the third class waiting hall at Secunderabad, other improvements were also effected. A waiting hall for third class passengers was built at Tadkalpudi.

North Western Railway.—The existing third class waiting halls at Haripur-Hazara, Havelian, Chak Naurang and Kotla Jam, were extended. A new third class waiting hall was provided at Fatehgarh-Churian. On the station platforms at Marh Balochan, four benches were provided. Seven benches were placed in the third class waiting hall at Bhakkar, two at Daulatala, two at Mankiala, two at Panipat and eight at Fatehgarh Churian.

Rohilkund and Kumaon Railway.—Four wooden benches (double type) were provided at Kasganj City, Kashipur and Bhojeepura.

South Indian Railway.—Two upper class waiting rooms, one for gentlemen and the other for ladies, were provided at Dindigul Junction. New waiting halls were provided at Bikshandarkovil, Narthamalai, and Olavakkot junction. One third class waiting hall was erected at Kayalpatnam, the existing one being converted into a purdah ladies' waiting hall. Two covered ways were provided on platforms at Dindigul. Two benches were provided on the station platform at Ariyalur and two in the third class waiting hall at Dindigul Junction.

(vii) *Opening of new stations and city booking offices.*

Assam Bengal Railway.—A new station, named Kujibali, was opened between Simaluguri and Sibsagar Town. For the convenience of mela passengers two temporary portable booking offices were provided at Barabakund and Baraiyadhala stations. An enquiry office was also opened at Sitakund station during mela periods.

Bengal and North-Western Railway.—An out agency was opened at Marufganj (Patna) for parcels and goods traffic.

Bengal Nagpur Railway.—One autolux lamp each at Bagnan and Ulubaria and two such lamps at Bauria were provided.

Bombay, Baroda and Central India Railway.—An additional booking window was provided at the local booking office on the down platform at Dadar. An out agency was opened at Jaipur for the booking of passengers, luggage and parcel.

Eastern Bengal Railway.—This railway joined in the combined Bengal Nagpur and East Indian Railway booking office at Bhowanipore in the southern area of Calcutta.

Great Indian Peninsula Railway.—The following stations were opened:—A flag station Rohna Devi, on the Dharwa-Pusad Railway, Malthan station, on the Dhond-Raichur section, which had been temporarily closed, Malikpeth, on the Kurdwadi-Hotgi section, Karanja Town on the Murtazapur-Yeotmal section, Murtazapur Town, Chawalkhede on the Jalgaon-Amalner section. A booking office was also opened at Mulji Jetha Market in Bombay.

Madras and Southern Mahratta Railway.—A booking office in Godavari Town was opened for booking of passengers and the Arlapet (Bangalore City) town booking office was closed.

South Indian Railway.—Two stations were opened, one at Peddanayakkanpalaiyam and the other at Sarvay on the Salem-Vriddhachalam section.

87. Accidents.—(*a*) The following table shows the number of railway servants and other persons killed and injured in accidents on Indian Railways, excluding casualties in railway workshops:—

Cause.	Killed.		Injured.	
	1932-33.	1933-34.	1932-33.	1933-34.
A.—Passengers.				
In accidents to trains, rolling-stock, permanent-way, etc.	6	**21**	61	**160**
In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	215	**204**	761	**785**
In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	10	**7**	21	**19**
Total .	231	**232**	843	**964**
B.—Railway servants.				
In accidents to trains, rolling-stock, permanent-way, etc.	8	**9**	79	**123**
In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	184	**177**	1,789	**1,975**
In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	24	**33**	5,922	**6,357**
Total .	216	**219**	7,790	**8,455**
C.—Other than passengers and railway servants.				
In accidents to trains, rolling-stock, permanent-way, etc.	41	**45**	103	**86**
In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	2,225	**2,307**	698	**679**
In accidents on railway premises in which the movements of trains, vehicles, etc., was not concerned.	44	**23**	75	**798**
Total .	2,310	**2,375**	876	**1,563**
Grand Total .	2,757	**2,826**	9,509	**10,982**

(*b*) Out of the total of 2,826 persons killed, 1,832 were trespassers; 393 were reported to be suicides and 63 were killed on railway premises other-

wise than during the movement of trains, vehicles, etc. The increase in the number killed, as compared with the previous year, is accounted for by an increase of 88 under the head "trespassers" which is partly counter-balanced by a decrease under the heads "suicide" (8) and "persons killed on railway premises otherwise than during the movement of trains, vehicles, etc." (15).

(*c*) The number of passengers killed and injured during the last 5 years compares as follows :—

Year.	Passengers.	
	Killed.	Injured.
1929-30	358	1,126
1930-31	337	1,037
1931-32	255	912
1932-33	231	843
1933-34	**232**	**964**

(*d*) On class I Railways the number of railway servants killed in accidents which occurred during the movement of trains and railway vehicles, exclusive of train accidents, decreased by 13 and the number injured increased by 176. The main causes of the accidents and the casualties resulting therefrom are summarised below :—

Cause.	Killed.		Injured.	
	1932-33.	**1933-34.**	1932-33.	**1933-34.**
Misadventure or accidental	121	**122**	1,558	**1,771**
Want of caution or misconduct on the part of the injured person.	51	**47**	183	**140**
Want of caution or breach of rules, etc., on the part of servants other than the person injured.	9	..	13	**22**
Defective apparatus or system of working, dangerous places, dangerous condition of work or want of rules or systems of working.	1	..	3	..
Total	182	**169**	1,757	**1,933**

(*e*) The following statement analyses the accidents which occurred during the last two years, grouped under the principal causes. A statement show-

ing the accidents in greater detail for each railway will be found in Appendix D of Volume II of this report :—

	1932-33.	1933-34.
1. Running over cattle	9,237	9,701
2. Derailments not involving passenger trains	2,968	3,174
3. Accidents due to failure of couplings and draw gear	2,017	1,917
4. Accidents due to failure of engines owing to faulty material, workmanship and operation arising from the working of the running staff	1,417	1,401
5. Accidents due to failure of engines owing to faulty material and workmanship in the Mechanical Department	543	521
6. Broken rails	350	355
7. Accidents due to failure of other rolling stock	4	345
8. Derailment of passenger trains	216	234
9. Running over obstructions on the lines other than those at level crossings	236	193
10. Flooding of permanent way	124	188
11. Fires in trains or at stations or bridges	195	186
12. Collision involving goods trains or goods vehicles	127	148
13. Attempted train wrecking	131	116
14. Trains running over obstructions or vehicles at level crossings	109	94
15. Land slips	59	74
16. Collisions involving passenger trains	44	65
17. Passenger trains running in the wrong direction through points but not derailed	59	55
18. Accidents due to failure of axles	54	44
19. Collisions between light engines	34	43
20. Train wrecking	47	20
21. Accidents due to failure of brake apparatus	5	13
22. Accidents due to failure of tyres or wheels	11	12
23. Failure of bridges or tunnels	3	6
24. Miscellaneous	297	326
Total	18,287	19,231

(*f*) The total number of accidents shows an increase of 944 when compared with the previous year: against this the increase in total train miles was 3·6 millions—

(i) "Running over cattle" still accounts for the largest number of accidents, *i.e.*, 50 per cent. of the whole. Next in order, are "derailments not involving passenger trains" (17 per cent.), "accidents due to failure of couplings and draw gear" (10 per cent.), "accidents due to failure of engines owing to faulty working of the running staff" (7 per cent.), "accidents due to failure of engines owing to faulty material, etc., in the mechanical department" (3 per cent.), "broken rails" (2 per cent.) and "accidents due to failure of other rolling stock" (2 per cent.).

(ii) The number of accidents classed under "attempted train wrecking" and "train wrecking" decreased from 131 and 47 to 116 and 20 respectively. Cases of "trains running over

obstructions or vehicles at level crossings " showed a decrease, in spite of an increase in the number of vehicles run during the year. The other heads which showed a decrease in the number of accidents were " running over obstructions on the line other than those at level crossings ", " fires in trains or at stations or bridges ", " passenger trains running in the wrong direction through points but not derailed " and " accidents due to failure of axles ".

(iii) " Derailments of passenger trains ", " flooding of permanent way ", " collisions involving goods trains or goods vehicles ", " land slips ", " collisions involving passenger trains ", " collisions between light engines ", and " accidents due to failure of brake apparatus, tyres or wheels, bridges or tunnels " showed an increase as compared with the previous year. Accidents in railway workshops accounted for the death of 8 and injuries to 8,789 railway servants, being an increase of 4 in the former and 220 in the latter as compared with the previous year.

88. Brief details are given below of the more serious accidents which occurred during the year.

On the 17th April, 1933, No. 85 Up Express was derailed at mile 19/40 between Sonwara and Dharampore stations on the Kalka Simla Section of the North Western Railway, due to the train travelling at an excessive speed. Ten persons (including three engine crew) were injured.

On the 2nd May, 1933, No. 2 Down Punjab Mail was derailed at mile 273/19-20 between Dumra and Burhee stations on the East Indian Railway, due to the track having been maliciously tampered with. The casualties were 5 killed, and 13 injured, and the damage to rolling stock and permanent way was approximately Rs. 48,000.

On the 20th May, 1933, a trolley belonging to the Bengal Coal Company's Rajhara Colliery, carrying the family of the Colliery Manager to Rajhara station, on the East Indian Railway, was run into from the rear by No. 1 Up which had emerged from a cutting before the trolley could be removed from the track. The accident was due to a disregard of the trolley rules and regulations by the Colliery Manager whose three-year old daughter was killed.

On the 6th June, 1933, No. 5 Up Mail ran into a motor bus at a level crossing situated about 400 feet outside the up outer signal of Bhadohi station on the East Indian Railway due to the gate-keeper not closing the gates in time and the motor bus driver not exercising reasonable caution. Fifteen passengers in the motor bus were killed on the spot and sixteen injured, two of whom died subsequently.

On the 1st July, 1933, No. 96 Down special ran into a breach in the embankment at mile 21, about 150 yards in length caused by a flood, between Sangola and Wasud on the Barsi Light Railway. The driver and the fireman sustained minor injuries, but the second fireman was seriously injured and subsequently succumbed to his injuries.

On the 4th July, 1933, No. 12 Down Express collided with a rake of vehicles near Raniganj on the East Indian Railway, causing injuries to ten passengers travelling by the Express. The accident was due to the points leading to a colliery siding not having been properly set.

On the 11th July, 1933, the rear portion of No. 21 Up mixed (which broke away at mile 7 on the Birur-Arasalu Branch of the Mysore Railway) collided with No. 17 Mail at Tarikere station. The accident was due to the brakes in the brake vans of No. 21 Up (when stalled at mile 7) not having been applied and to adequate steps not having been taken to prevent the rear portion of the train from moving. Eleven passengers were killed on the spot and nineteen injured, six of whom subsequently succumbed to their injuries.

On the 27th September, 1933, sixteen loaded wagons of No. M. 45 Up goods train were derailed at mile 561/14 on the Amla-Parasia section of the Great Indian Peninsula Railway, due either to one of the wagons being defective or to its having run over an obstacle. The total damage to permanent way and rolling stock amounted approximately to Rs. 32,000.

On the 13th October, 1933, a goods train standing partly on a cross-over was run into by No. 10 Trivandrum Fast passenger train at Tambaram station on the South Indian Railway. Twenty passengers, including thirteen railway servants, were slightly injured. The accident was due to the driver of the passenger train not observing signals.

On the 26th October, 1933, No. 3 Up Mail was derailed at mile 414/19 between Ganjkhwaja and Moghalserai stations on the East Indian Railway, due to the distortion of the track, caused by the lurching which the XB type engine develops at high speed. Twenty passengers were injured, two seriously.

On the 29th January, 1934, while No. 161-A Up Express goods train was coming to a stop on the loop line at Harthala station on the East Indian Railway, in order to cross No. 162-A Down Express goods train, the driver of the latter train ran against signals and caused a head-on collision with No. 161-A. The cost of damage to rolling stock and track amounted approximately to Rs. 28,000.

On the 20th February, 1934, No. 352 Down goods train collided with an Up engine with brake van attached at mile 291/10 between Rechni Road and Asifabad Road stations on His Exalted Highness the Nizam's State Railway. The accident was due to a breach of the rules for working on the part of the station staff. The crew of the Up engine sustained minor injuries. The damage to rolling stock amounted to Rs. 8,000.

89. Damage by earthquakes, floods and cyclones.—*Cyclone damages on the South Indian Railway.*—On the 15th December, 1933, a cyclonic storm accompanied by heavy rain crossed the Coromandel coast between Pondicherry and Tranquebar and caused considerable damage to South Indian Railway property, with interruption to traffic on several sections. There was considerable damage to telegraph lines, posts being uprooted in several places; trees were blown down in large numbers and roofs of cabins, station buildings and staff quarters also suffered severely. The permanent-way was breached in several places and several bridges and the approaches thereto were eroded. A feature of the cyclone was that in three instances coaches on passenger trains capsized owing to the force of the wind, but fortunately with no injury to any of the passengers.

Earthquake damages.—The earthquake of the 15th January, 1934, caused widespread damage and loss of life over the Bengal and North-Western, East Indian and Eastern Bengal Railways. The following is a brief account of the damage to railway property on the several systems :—

Bengal and North-Western Railway.—The worst of the damage occurred on the Tirhut (State) section and ranged from buildings and bridges, which merely cracked to practically complete destruction of bridges and structures, the severest damage occurring in the low-lying and water-logged parts. All over the Tirhut and East U. P. sections, station buildings, bungalows, staff quarters and other buildings were more or less damaged; the permanent-way and bridging settled in several places, and the rails remained suspended or were moved laterally. In fact not a bridge in Tirhut was left undamaged to a greater or less extent and hardly a mile of permanent-way was left undisturbed. The damaged bridges included the two large ones at Turtipar and near Chupra (Inchcape bridge). The Bur-Gandak Bridge at Khagaria also had one pier seriously damaged.

The cost of repairs and of complete restoration of the various sections is placed at Rs. 23 lakhs, but this takes no account of the further settlement and damage which are almost certain to occur when the country broken by the earthquake is subjected to the monsoon floods. The loss to human life

Earthquake fissures in Bairagnia Station yard.

was, however, fortunately only two, who were killed in the collapse of the Engineering workshop at Samastipur.

East Indian Railway.—Very serious damage was done to buildings and structures at various stations on the East Indian Railway notably at Jamalpur, where 130 out of 180 houses in the railway colony collapsed and were rendered uninhabitable. The loss of life was also serious, 17 persons being killed, and 48 others being injured. The workshops were also badly damaged and work was stopped for an indefinite period. The cost of repairs to the workshops and of remodelling the station yard at Jamalpur is alone estimated at not less than Rs. 50 lakhs and it is necessary to incur an expenditure of an additional Rs. 15 lakhs on quarters at Jamalpur, Monghyr, Patna and a few other stations to accommodate the staff rendered homeless by the earthquake. Fortunately the track and bridges on this railway were not damaged to any material extent.

Eastern Bengal Railway.—The damage on this line was mainly confined to the track, bridges and culverts on the sections Katihar to Purnea and Jogbani and to the Murliganj and Behariganj branches over which all traffic was stopped temporarily. The total cost of repairs is estimated at Rs. 4½ lakhs.

90. Central Publicity.—The Central Publicity Bureau and its branches in London and New York have continued their general activities on the lines of the previous years. An improvement in the tourist traffic to India generally from Europe and America is recorded. A decrease in "luxury" traffic, that is to say, traffic in tourists from overseas who make use of tourist cars, has been observed, but an increase in "Inland tourist car traffic", that is to say, the use of tourist cars by people in India, is reported to the extent of 46·5 per cent. over the figures for the previous year.

During the year under review, three "World Cruise" ships visited India as against two in 1932-33. One of these ships in particular, the "Gripsholm", is of special interest as she represented a new venture in "World Cruises". This cruise was primarily to India and the overland journey in this country was included in the cost of the ticket. All land trips from Ports touched on the journey out and back were extras. The "Gripsholm" was run by the Swedish American Line for the benefit of the continent of Europe generally and of Swedes, Norwegians and Danes in particular. It is believed that advertising on the Continent by the Indian State Railways has materially contributed to the organisation of this cruise.

Generally speaking both the London and the New York Bureaux show a marked increase in the work done.

As in previous years, Indian Railways were represented at the British Industries Fair, 1934, and at the Advertising and Marketing Exhibition held at Olympia during 1933. In America, Indian Railways received valuable publicity at the Century of Progress Exhibition at Chicago (1933) by collaboration with the Chrysler Corporation Ltd.

In India, the Central Bureau has continued its activities in regard to fostering pilgrim traffic to places of religious importance, and the results obtained have shown a remarkable improvement over other years indicating that the lines worked on are correct.

91. Anti-malarial measures.—During the year under review, anti-malarial measures on railways were continued with good results.

On the Assam Bengal Railway there was a small increase in the percentage of malaria cases during 1933-34 as compared with 1932-33. Lumding continued to show the lowest percentage of malaria cases. There was a rise in the number of malaria cases at Pahartali in the first quarter of the year but considerable improvement was effected when the anti-malaria organisation started working.

The malaria season of 1933 on the Bengal Nagpur Railway was exceptional owing to an unusually heavy monsoon which commenced very early and continued till October. In spite of severe damage done to training and other

anti-malarial works, considerable improvement was effected in the areas in which malaria controls were functioning.

On the Eastern Bengal Railway the number of malaria cases dropped from 12,596 cases in 1932-33 to 9,266 in 1933-34. Almost all the stations under malaria control showed an improvement. 11 additional stations were brought under malaria control and measures were carried out in conjunction with the Public Health Department of Bengal and the Calcutta Corporation, especially the latter, in connection with the extermination of the Anopheles Ludlowii mosquito which infects the outskirts of Calcutta. The most notable result of control measures was at Raja Bhat Khawa where the peak of malaria incidence is reached during the period September to December. At certain stations under malaria control and in the Calcutta Medical District, cases of malaria were treated by the new synthetic preparations—Atebrin and Plasmoquine. An insecticide named "Killsect" was also prepared in the Railway Chemical Laboratory at Sealdah and used in some control stations for destroying adult mosquitoes. This insecticide is more effective and considerably cheaper than the proprietary preparation of "Flit".

Anti-malarial measures were extended to certain stations on the Bombay, Baroda and Central India Railway. Special mention may be made of the work done at Ajmer where as a result of the operation conducted by the Municipality at the instance of the Malaria Advisory Committee, the mosquito nuisance in the Railway area contiguous to the Municipal land was reduced to some extent.

On the Great Indian Peninsula Railway the percentage of malaria cases slightly increased from 7·81 in 1932-33 to 8·84 in 1933-34. The usual anti-malarial measures with a view to systematic destruction of larvae and prevention of breeding by regular cleaning and oiling of all drains, drainage of pools of stagnant water where possible, filling up of small pits and depressions, etc., were carried out throughout the year.

On the Madras and Southern Mahratta Railway anti-malarial measures were successfully carried out and it was found possible to remove two stations from the list of "unhealthy stations".

APPENDIX A.

Railway Administrations in India alphabetically arranged in three classes according to their gross earnings showing the working agencies and ownership.

[NOTE.—Railways under construction or sanctioned for construction on the 31st March 1934, are shown in italics.]

Railway system.		Lines comprised in the system.		
Name. 1	Worked by 2	Name. 3	Gauge. 4	Owned by 5
CLASS I.—RAILWAYS.				
1. Assam Bengal	Assam Bengal Railway Company.	(a) Assam Bengal	3′ 3⅜″	State.
		(b) Chaparmukh Silghat	3′ 3⅜″	Branch line Company under guarantee terms.
		(c) Katakhal Lalabazar	3′ 3⅜″	Ditto.
		(d) Mymensingh Bhairab Bazar.	3′ 3⅜″	Branch line Company under guarantee and rebate terms.
2. Bengal and North-Western.	Bengal and North-Western Railway Company.	(a) Bengal and North-Western.	3′ 3⅜″	Company subsidized by the Government of India*.
		(b) Mashrak-Thawe	3′ 3⅜″	State.
		(c) Tirhoot	3′ 3⅜″	Do.
3. Bengal Nagpur	Bengal Nagpur Railway Company.	(a) Bengal Nagpur	5′ 6″	Do.
		(b) Anuppur-Manendragarh.	5′ 6″	Do.
		(c) Mayurbhanj	2′ 6″	Branch line Company under rebate terms.
		(d) Parlakimedi Light	2′ 6″	Indian State.‡
		(e) Purulia-Ranchi	2′ 6″	State.
		(f) Raipur-Dhamtari	2′ 6″	Do.
		(g) Satpura	2′ 6″	Do.
4. Bombay, Baroda and Central India.	Bombay, Baroda and Central India Railway Company.	(a) Bombay, Baroda and Central India.	5′ 6″	Do.
		(b) Nagda-Ujjain	5′ 6″	Indian State.
		(c) Petlad-Cambay (Anand-Tarapur Section).	5′ 6″	Ditto.
		(d) Petlad-Cambay (Tarapur-Cambay Section).	5′ 6″	Ditto.
		(e) Tapti-Valley	5′ 6″	Branch line Company under rebate terms.
		(f) Bombay, Baroda and Central India.	3′ 3⅜″	State.
		(g) Ahmedabad-Parantij	3′ 3⅜″	Branch line Company under rebate terms.
		(h) Dhrangadra	3′ 3⅜″	Indian State.
		(i) Jaipur State	3′ 3⅜″	Ditto.
		(j) Palanpur-Deesa	3′ 3⅜″	Ditto.†
		(k) Bombay, Baroda and Central India.	2′ 6″	State.
		(l) Champaner-Shivrajpur-Pani Light.	2′ 6″	Branch line Company under rebate terms.
		(m) Godhra-Lunavada	2′ 6″	Ditto.
		(n) Nadiad-Kapadvanj	2′ 6″	Ditto.
		(o) Piplod-Devgad-Baria	2′ 6″	Indian State.
		(p) Rajpipla State	2′ 6″	Ditto.
5. Burma	State	(a) Burma	3′ 3⅜″	State.

* Receives land only from Government.
† Owned jointly by Government and Palanpur Durbar. (Sale of Government's Financial interest in this line to the Durbar has been decided upon.)
‡ Owned by Raja of Parlakimedi.

Railway system.		Lines comprised in the system.		
Name.	Worked by	Name.	Gauge.	Owned by
1	2	3	4	5
		CLASS I.—RAILWAYS—*contd.*		
6. Eastern Bengal	State	(*a*) Eastern Bengal	5′ 6″	State.
		(*b*) Sara Sirajganj	5′ 6″	Branch line Company under rebate terms.
		(*c*) Eastern Bengal	3′ 3⅜″	State.
		(*d*) Cooch Behar State	3′ 3⅜″	Indian State.
		(*e*) Eastern Bengal	2′ 6″	State.
		(*f*) Khulna-Bagerhat	2′ 6″	Branch line Company under rebate terms.
7. East Indian	State	(*a*) East Indian	5′ 6″	State.
		(*b*) Hardwar-Dehra	5′ 6″	Branch line Company under guarantee terms.
		(*c*) South Bihar	5′ 6″	Branch line Company.
		(*d*) Cawnpore-Burhwal link.*	3′ 3⅜″	State.
8. Great Indian Peninsula.	State	(*a*) Great Indian Peninsula.	5′ 6″	Do.
		(*b*) Bhopal-Itarsi (Indian State Section).	5′ 6″	Indian State.
		(*c*) Bhopal-Ujjain	5′ 6″	Ditto.
		(*d*) Bina-Goona-Baran	5′ 6″	Ditto.
		(*e*) Dharwa-Pusad	2′ 6″	State.
		(*f*) Dhond-Baramati	2′ 6″	Branch line Company under rebate terms.
		(*g*) Ellichpur-Yeotmal	2′ 6″	Ditto.
		(*h*) Pachora-Jamner	2′ 6″	Ditto.
		(*i*) Pulgaon-Arvi	2′ 6″	Ditto.
9. Jodhpur	Indian State	(*a*) Jodhpur	3′ 3⅜″	Indian State.
		(*b*) Jodhpur-Hyderabad (British Section).	3′ 3⅜″	State.
		(*c*) Mirpur Khas-Khadro	3′ 3⅜″	Company subsidized by the Government of India.†
10. Madras and Southern Mahratta.	Madras and Southern Mahratta Railway Company.	(*a*) Madras and Southern Mahratta.	5′ 6″	State.
		(*b*) Kolar Goldfields	5′ 6″	Indian State.
		(*c*) Tenali-Repalle	5′ 6″	District Board.
		(*d*) Madras and Southern Mahratta.	3′ 3⅜″	State.
		(*e*) Alnavar-Dandeli (Provincial).	3′ 3⅜″	Do.
		(*f*) Bangalore-Harihar	3′ 3⅜″	Indian State.
		(*g*) Bezwada-Masulipatam.	3′ 3⅜″	District Board.
		(*h*) Hindupur (Yesvantpur-Mysore Frontier).	3′ 3⅜″	Indian State.
		(*i*) Kolhapur State	3′ 3⅜″	Ditto.
		(*j*) Sangli State	3′ 3⅜″	Ditto.
		(*k*) West of India Portuguese.	3′ 3⅜″	Foreign Country.
11. Nizam's State	Nizam's State Railways.	(*a*) Nizam's State	5′ 6″	Indian State.
		(*b*) Bezwada Extension	5′ 6″	State.
		(*c*) Nizam's State	3′ 3⅜″	Indian State.
		(*d*) Dronachellam (Dhone)-Kurnool-British Frontier.	3′ 3⅜″	State.

* Under running power agreement the B. and N.-W. Railway Company run and haul their trains and traffic over this line.

† Receives land only from Government.

Railway system.		Lines comprised in the system.		
Name.	Worked by	Name.	Gauge.	Owned by
1	2	3	4	5
CLASS I.—RAILWAYS—*concld.*				
12. North Western	State	(*a*) North Western	5′ 6″	State.
		(*b*) Amritsar Patti	5′ 6″	Branch line Company under rebate terms.
		(*c*) Bahawalnagar Baghdad.	5′ 6″	Indian State.
		(*d*) Hoshiarpur Doab (Jullundur Mukerian).	5′ 6″	Branch line Company under rebate terms.
		(*e*) Hoshiarpur Doab (Phagwara-Rahon).	5′ 6″	Ditto.
		(*f*) Jammu and Kashmir (Indian State Section).	5′ 6″	Indian State.
		(*g*) Jind Panipat (Indian State Section).	5′ 6″	Ditto.
		(*h*) Khanpur-Chachran	5′ 6″	Ditto.
		(*i*) Ludhiana-Dhuri Jakhal.	5′ 6″	Ditto.
		(*j*) Mandra-Bhaun	5′ 6″	Branch line Company under rebate terms.
		(*k*) Rajpura Bhatinda	5′ 6″	Indian State.
		(*l*) Sirhind Rupar	5′ 6″	Ditto.
		(*m*) Sialkot Narowal	5′ 6″	Branch line Company under rebate terms.
		(*n*) Jacobabad-Kashmor.	2′ 6″	Ditto.
		(*o*) Kalka-Simla	2′ 6″	State.
		(*p*) Kangra-Valley	2′ 6″	Do.
		(*q*) Kohat-Thal	2′ 6″	Do.
		(*r*) Larkana-Jacobabad	2′ 6″	Branch line Company under rebate terms.
		(*s*) Trans-Indus (Kalabagh-Bannu).	2′ 6″	State.
		(*t*) Zhob Valley (Fort Sandeman khanai).	2′ 6″	Do.
13. Rohilkund and Kumaon.	Rohilkund and Kumaon Railway Company.	(*a*) Rohilkund and Kumaon.	3′ 3⅜″	Company subsidized by the Government of India.
		(*b*) Lucknow-Bareilly	3′ 3⅜″	State.
14. South Indian	South Indian Railway Company.	(*a*) South Indian	5′ 6″	Do.
		(*b*) South Indian	3′ 3⅜″	Do.
		(*c*) Nilgiri	3′ 3⅜″	Do.
		(*d*) Peralam-Karaikkal	3′ 3⅜″	Foreign Country.
		(*e*) Podanur-Pollachi	3′ 3⅜″	District Board.
		(*f*) Pondicherry	3′ 3⅜″	Foreign Country.
		(*g*) Shoranur-Cochin	3′ 3⅜″	Indian State.
		(*h*) Tinnevelly-Tiruchendur.	3′ 3⅜″	District Board.
		(*i*) Travancore (British Section).	3′ 3⅜″	State.
		(*j*) Travancore (Indian State Section).	3′ 3⅜″	Indian State.
		(*k*) Morappur-Hosur	2′ 6″	State.
		(*l*) Tirupattur-Krishnagiri.	2′ 6″	Do.
CLASS II.—RAILWAYS.				
1. Barsi Light	Barsi Light Railway Company.	Barsi Light	2′ 6″	Company subsidized by the Government of India.*
2. Bengal Dooars	Bengal Dooars Railway Company.	(*a*) Bengal Dooars	3′ 3⅜″	Company subsidized by District Board.
		(*b*) Bengal Dooars Extensions.	3′ 3⅜″	Company subsidized by the Government of India.*
3. Bhavnagar State	Indian State	Bhavnagar State	3′ 3⅜″	Indian State.
4. Bikaner State	Ditto	Bikaner State	3′ 3⅜″	Ditto.

* Receives land only from Government.

Railway system. Name. 1	Railway system. Worked by 2	Lines comprised in the system. Name. 3	Gauge. 4	Owned by 5
CLASS II.—RAILWAYS—*concld.*				
5. Darjeeling Himalayan	Darjeeling Himalayan Railway Company.	(a) Darjeeling Himalayan.	2′ 0″	Company subsidized by Local Government.
		(b) Darjeeling Himalayan Extensions.	2′ 0″	Branch line Company under rebate terms.
6. Dibru-Sadiya . .	Assam Railways and Trading Company.	(a) Dibru-Sadiya . .	3′ 3⅜″	Company subsidized by Local Government.
		(b) Ledo and Tikak-Margherita Colliery.	3′ 3⅜″	Unassisted Company.
7. Gaekwar's Baroda State.	Indian State . .	(a) Gaekwar's Mehsana. .	3′ 3⅜″	Indian State.
		(b) Gaekwar's Baroda State.	2′ 6″	Ditto.
		(c) Bodeli Chhota Udaipur.	2′ 6″	Ditto.
8. Gondal . . .	Ditto . . .	(a) Gondal . . .	3′ 3⅜″	Ditto.
		(b) Jetalsar Rajkot .	3′ 3⅜″	Ditto.
		(c) Khijadiya Dhari .	3′ 3⅜″	Ditto.
9. Howrah-Amta Light .	Howrah-Amta Light Railway Company.	Howrah-Amta Light .	2′ 0″	Company subsidized by District Board.
10. Jamnagar and Dwarka	Jamnagar and Dwarka Railway Company.	(a) Jamnagar . .	3′ 3⅜″	Indian State.
		(b) Jamnagar-Dwarka .	3′ 3⅜″	Branch line Company under guarantee and rebate terms.†
		(c) Okhamandal . .	3′ 3⅜″	Indian State.
11 Junagad State . .	Indian State . .	Junagad State . .	3′ 3⅜″	Ditto.
12. Morvi . . .	Ditto . . .	Morvi	3′ 3⅜″	Ditto.
13. Mysore . . .	Ditto . . .	(a) Mysore . . .	3′ 3⅜″	Ditto.
		(b) Bangalore-Chik Ballapur Light.	2′ 6″	Company guaranteed by Indian State.
		(c) Kolar District .	2′ 6″	Indian State.
		(d) Tarikere-Narasimharajapura Light.	2′ 0″	Ditto.
14. Shahdara (Delhi) Saharanpur Light.	Shahdara (Delhi) Saharanpur Light Railway Company.	Shahdara (Delhi) Saharanpur Light.	2′ 6″	Company subsidized by the Government of India.*
CLASS III.—RAILWAYS.				
1. Ahmadpur-Katwa .	Ahmadpur-Katwa Railway Company.	Ahmadpur-Katwa .	2′ 6″	Branch line Company under guarantee terms.
2. Arrah-Sasaram Light	Arrah-Sasaram Light Railway Company.	Arrah-Sasaram Light .	2′ 6″	Company subsidized by District Board.
3. Bankura-Damoodar River.	Bankura-Damoodar River Railway Company.	Bankura-Damoodar River.	2′ 6″	Branch line Company under guarantee terms.
4. Baraset-Basirhat Light.	Baraset-Basirhat Railway Company.	Baraset-Basirhat Light .	2′ 6″	Company subsidized by District Board.
5. Bengal Provincial .	Bengal Provincial Railway Company.	(a) Bengal Provincial .	2′ 6″	Unassisted Company.
		(b) Dasghara Jamalpurgunj.	2′ 6″	Branch line Company under guarantee terms.
6. Bukhtiarpur-Bihar Light.	Bukhtiarpur-Bihar Light Railway Company.	Bukhtiarpur-Bihar Light	2′ 6″	Company subsidized by District Board.
7. Burdwan-Katwa .	Burdwan-Katwa Railway Company.	Burdwan-Katwa . .	2′ 6″	Branch line Company under guarantee terms.
8. Cutch State .	Indian State . .	Cutch State . . .	2′ 6″	Indian State.

† Financed on rebate terms given by the Jamnagar Durbar.
* Receives land only from Government.

Railway system.		Lines comprised in the system.		
Name. 1	Worked by 2	Name. 3	Gauge. 4	Owned by 5
		CLASS III.—RAILWAYS—*concld.*		
9. Dehri-Rohtas Light .	Dehri-Rohtas Light Railway Company.	Dehri-Rohtas Light .	2′ 6″	Company subsidized by the Government of India.
10. Dholpur State . .	Indian State . .	Dholpur State . .	2′ 6″	Indian State.
11. Futwah-Islampur .	Futwah-Islampur Light Railway Company.	Futwah-Islampur . .	2′ 6″	Branch line Company under guarantee terms.
12. Gwalior Light . .	Indian State . .	Gwalior Light . .	2′ 0″	Indian State.
13. Howrah-Sheakhala Light.	Howrah-Sheakhala Light Railway Company.	Howrah-Sheakhala Light	2′ 0″	Company subsidized by District Board.
14. Jagadhri Light .	Jagadhri Light Railway Company.	Jagadhri Light . .	2′ 0″	Unassisted Company.
15. Jessore-Jhenidah .	Jhenidah Railway Syndicate.	Jessore-Jhenidah . .	2′ 6″	Ditto.
16. Jorhat (Provincial) .	River Steam Navigation Company and India General Navigation and Railway Company.	Jorhat (Provincial) .	2′ 0″	State.
17. Kalighat-Falta .	Kalighat-Falta Railway Company.	Kalighat-Falta . .	2′ 6″	Branch line Company under guarantee terms.
18. Kulasekarapatnam Light.	East India Distilleries and Sugar Factories.	Kulasekarapatnam Light	2′ 0″	Unassisted Company.
19. Matheran Light .	Matheran Steam Tramway Company.	Matheran Light . .	2′ 0″	Company subsidized by the Government of India. *
20. Porbandar State .	Indian State . .	Porbandar State . .	3′ 3⅜″	Indian State.
21. Tezpore-Balipara Light.	Tezpore-Balipara Steam Tramway Company.	Tezpore-Balipara Light .	2′ 6″	Company subsidized by District Board.
22. Trivellore Light .	T. Namberumal Chetty and Sons.	Trivellore Light . .	2′ 0″	Unassisted Company.
23. Udaipur-Chitorgarh .	Indian State . .	Udaipur-Chitorgarh .	3′ 3⅜″	Indian State.

* Receives land only from Government.

APPENDIX B.

Notes on the relation of the Government to Railways in India.

(Reprinted from the Report for 1914-15 and brought up to date.)

Diversity of Relations between the State and Railways.—One of the special features of the Indian Railway system is the diversity of conditions that prevails in the relation of the State to the various lines in respect of ownership and control. Of the important lines situated in British India or in which the Government of India is interested, five [the North Western,* Eastern Bengal, East Indian (with which has been amalgamated the Oudh and Rohilkhand Railway from the 1st July 1925), Great Indian Peninsula and Burma Railways] are owned and worked by the State; five (the Bombay, Baroda and Central India, Madras and Southern Mahratta, Assam-Bengal, Bengal-Nagpur and South Indian) are owned by the State but worked on its behalf by companies enjoying a guarantee of interest from the Government; two important lines (the Bengal and North-Western, and Rohilkund and Kumaon) and many of less importance are the property of private companies, some being worked by the owning companies and some by the State or by the companies that work State-owned systems; several minor lines are the property of District Boards or enjoy a guarantee of interest granted by such Boards.

The diversity of conditions is in certain respects less important than might at first appear for the following reasons:—

The Government of India exercises under the Indian Railways Act, 1890, in respect of all railways in British India (and also, by virtue of arrangements with Indian States, in respect of certain railways passing through such States), certain general powers. Thus a railway may not be opened until a Government Inspector has certified that it has been constructed so as to comply with requirements laid down by the Government and can be used for the public carriage of passengers without danger to them. The Government of India can also, in the interest of the safety of passengers, require a railway to be closed, or the use of particular rolling-stock to be discontinued, or may prescribe conditions for the use of the railway or the rolling-stock. They can appoint a Railway Commission to investigate complaints on certain matters such as the withholding of reasonable traffic facilities or the grant of undue preference.

In addition, the Government of India (or in some cases Local Governments) exercise under the provisions of contracts detailed control over the management of all Railways in British India greatly exceeding that which is secured by the Indian Railways Act. They also have a certain financial interest in all companies in British India, and a preponderating interest in most of the Railways which are of the first importance.

History of Relations of the Government and Companies.—The main causes which have led to the present diversity of conditions in regard to the agency by which railways are managed, and the relations of the Government with the various classes of companies now in existence, are summarised in the following paragraphs:—

The first proposals for the construction of railways in India were submitted in 1844 to the East India Company in England by Mr. R. M. Stephenson, afterwards Chief Engineer of the East Indian Railways, and others; they included the construction of lines by railway companies to be incorporated for the purpose and the guarantee by the East India Company of a specified return. A contract for the construction by the East Indian Railway Company of an experimental line of 100 miles from Calcutta towards Mirzapore or Rajmehal at an estimated cost of 1,000,000*l*. was made in 1849, and a return of 5 per cent. was guaranteed by the East India Company on the Capital; and a similar contract was made in the same year with the Great Indian Peninsula Railway Company for a line from Bombay to Kalyan at an estimated cost of 500,000*l*. But the policy of entrusting generally the construction of Indian railways to guaranteed companies was not adopted until 1854 on the recommendation of Lord Dalhousie, who, in a minute, dated 20th April 1853, explained his reasons for preferring the agency of companies, under the supervision and control of the Government, to the construction of lines on behalf of the Government by its own officers. He held that the State Engineer officers would make railways as well, and possibly as cheaply, and as expeditiously as companies; but that the withdrawal from other duties of the large number

* Includes the Delhi, Umballa, Kalka and Southern Punjab Railways which were purchased by the Secretary of State on 31st March 1926 and 1st January 1930 respectively.

of officers required would be detrimental to the public interest, that the conduct of commercial undertakings did not fall within the proper functions of any Government and least of all within the functions of the Government of India, since the dependence of the population on the Government was, in India, one of the greatest drawbacks to the advance of the country, and that the country would therefore benefit by the introduction of English energy and English capital for railway purposes, with the possibility that such energy and capital would in due course be encouraged to assist in the development of India in other directions.

Old Guaranteed Railways.—The policy supported by Lord Dalhousie was adopted, between 1854 and 1860 contracts for the construction of Railways in India were made by the East India Company, or (after 1858) by the Secretary of State for India with the East Indian, Great Indian Peninsula, Madras, Bombay, Baroda and Central India, Sind (afterwards, the Sind, Punjab and Delhi), Eastern Bengal, Great Southern of India (afterwards, when amalgamated with the Carnatic Railway Company —see below—the South Indian) and Calcutta and South-Eastern Railway Companies. Under these contracts the railway companies undertook to construct and manage specified lines, while the East India Company (or the Secretary of State for India) agreed to provide land and guaranteed interest on the capital, the rate fixed being in various cases 5, $4\frac{3}{4}$ and $4\frac{1}{2}$ per cent. according to the market rates prevailing when the various contracts were made. Half of any surplus profits earned was to be used towards repaying to the Government any sums by which it had been called upon to supplement the net earnings of any previous period in order to make good the guarantee of interest; and the remainder was to belong to the shareholders. In practically all matters of importance except the choice of staff, the companies were placed by the contracts under the supervision and control of the Government which had power to decide on the standard and details of construction; the rolling-stock to be provided, the number, time and speed of train; the rates and fares to be charged; the expenditure to be incurred; the standard of maintenance; and the form of accounts. The railways were to be held by the companies on leases terminating at the end of 99 years, and on such termination the fair value of their rolling-stock, plant and machinery was to be paid to them. But provision was also made to enable the Government to purchase the lines after 25 or 50 years on terms calculated to be the equivalent of the companies interest therein and also to enable the companies to surrender their lines to the Government and to receive in return their capital at par.

Early Attempts to Secure Funds for Railway Construction without a Guarantee.—An attempt to secure the construction of railways in India, on terms more favourable to the Government than those of the contracts with the original guaranteed companies, was first made in 1862, when a subsidy, but not a guarantee, was granted to the Indian Branch Railway Company which proposed to make feeders to the trunk lines in Northern India, and did actually make one such line. Similar assistance was granted later to the Indian Tramway Company, which made a short line in Madras. In 1864, the terms granted to the two companies mentioned were taken as a standard for general adoption with a view to the encouragement of similar companies. The chief provisions were that the Government, besides giving the necessary land free of costs, would grant an annual subsidy for 20 years at a rate not exceeding £100 per mile of line with an addition in respect of large bridges costing more than £10,000. These terms failed to attract capital, and the two unguaranteed companies which had begun work found themselves after a few years unable to proceed without further assistance from the Government. Consequently, in 1867, a contract was entered into with the Indian Branch Railway Company (which soon after changed its name to the "Oudh and Rohilkhand Railway Company") by which the company was guaranteed interest at 5 per cent. per annum on the cost of certain lines to be carried out by it, on conditions similar to those laid down in the contracts of the period 1854—1860. Similarly, the Indian Tramway Company, after having been given in 1868 a guarantee of 3 per cent. per annum, went into liquidation in 1870, and became absorbed in a new company called the Carnatic Railway Company (afterwards amalgamated with the Great Southern of India Railway Company to form the South Indian Railway Company), with which the Secretary of State entered into a contract guaranteeing interest on its capital at 5 per cent. per annum. In 1869, Sir John Lawrence summed up the result of the experiment of the construction of railways by unguaranteed companies as follows:—"The Government of India has for several years been striving to induce capitalists to undertake the construction of railways in India at their own risk, and on their responsibility with a minimum of Government interference. But the attempt has entirely failed, and it has become obvious that no capital can be obtained for such undertakings otherwise than under a guarantee of interest fully equal to that which the Government would have to pay if it borrowed directly on its own account."

The attempt to encourage unguaranteed companies having thus been unsuccessful, it became necessary to decide whether the old practice of relying on guaranteed companies, of the type that had provided capital for, and had constructed, the first railways

in India, should be continued. The Government of India expressed their objections to this course. They doubted whether their power of control over such companies secured the greatest possible economy in construction. They also disliked the arrangements under which they guaranteed the interest on the capital of companies, and thus became responsible for loss on working while having only a comparatively remote prospect of profiting by the result of successful working. Two important changes were consequently made in the practice that had been followed since the beginning of railway construction in India:—

1. Arrangements were made with some of the most important of the guaranteed companies that, in lieu of the provision that half of any surplus profits was to be applied in repayment of sums advanced by the Government under the guarantee of interest, half of the surplus profits for each half-year should be the property of the Government. In consideration of this modification, the Government relinquished, in the case of three companies, the Great Indian Peninsula, the Bombay, Baroda and Central India and the Madras, its right to purchase the lines at the end of the first 25 years from the dates of the respective contracts.

2. It was decided by the Secretary of State that the time had arrived when in both raising and expending such additional capital as might be required for new lines in India, the Government should secure to itself the full benefit of its own credit and of the cheaper methods which it was expected that it would be able to use. Accordingly, for several years after 1869, the capital expenditure on railways was chiefly incurred direct by the State and no fresh contracts with guaranteed companies were made except for small extensions. Among the lines constructed or begun by State agency and from State capital between 1869 and 1880 were the Indus Valley, Punjab Northern, Rajputana-Malwa, Northern Bengal, Rangoon and Irrawady Valley and Tirhoot.

Progress in the Construction of Railways.—By the end of 1879, in about 25 years from the introduction of railways in India, 6,128 miles of railway had been constructed by companies which had expended, approximately, £97,872,000 (these figures include the Calcutta and South-Eastern and Nalhati Railways which were constructed by companies but were purchased by the Government in 1868 and 1872, respectively). By the same date 2,175 miles of railway had been constructed by the Government at a cost of £23,695,226.

Introduction of Modified Guarantee Terms.—In 1880, the necessity for great and rapid extension of the railway system was urged by the Famine Commissioners, appointed after the great famine of 1878, who estimated that at least, 5,000 miles were still necessary for the protection of the country from famine. It was held by the Government of the time that a limit was necessary on the capital borrowed annually; and it was clear that the limit fixed was not high enough to allow of such progress in railway construction as was desirable. With reference to this difficulty the Famine Commissioner remarked: "that there would be manifest advantages in giving free scope to the extension of railways by private enterprise if it were possible; and, though the original form of guarantee has been condemned, it may not be impossible to find some substitute which shall be free from its defects, and may secure the investment of capital in these undertakings without involving the Government in financial or other liabilities of an objectionable nature."

Action in the direction suggested by the Commission was taken by the formation of three companies without a guarantee (the Bengal Central in 1881 and the Bengal and North-Western and Rohilkund and Kumaon in 1882), and three new guaranteed companies (Southern Mahratta in 1882, the Indian Midland in 1885, and the Bengal-Nagpur in 1887). The Bengal and North-Western and the Rohilkund and Kumaon Railway Companies are referred to more fully, in a later paragraph. The Bengal Central Railway Company's operations were not successful at the outset, and a revised contract was entered into with the company, with effect from the 1st July 1885, under which the Secretary of State guaranteed interest at 3½ per cent. on the company's capital the balance of net earnings remaining after payment of interest on advances by the Secretary of State and debenture capital (but not the share capital) being divided between the Secretary of State and the company in the proportions of three-quarters to the former and one-quarter to the latter. The new contract gave the Secretary of State the right to take possession of the line on the 30th June 1905, or subsequently at intervals of 10 years, on repaying the company's capital at par. The rate of interest guaranteed to the Southern Mahratta Railway Company was also 3½ per cent.; in this case the balance of net earnings remaining after payment of interest on advances by the Secretary of State (but not on share or debenture capital) was divisible in the same way as in the case of the Bengal Central Railway Company. The guarantee to the Indian Midland and Bengal-Nagpur Railway Companies was 4 per cent.; and the Secretary of State was entitled to three-quarters of the surplus profits in excess of all interest charges. The lines constructed by the three companies last mentioned were declared to be the property

of the Secretary of State, who had the right to determine the contracts at the end of approximately 25 years after their respective dates, or at subsequent intervals of 10 years, on repaying at par the capital provided by the companies.

The Assam Bengal Railway Company was formed on similar lines in 1892, except that any surplus profits were to be divided between the Secretary of State and the company in proportion to the capital provided by each. The rate of guarantee in this case was $3\frac{1}{2}$ per cent. for the first six years and thereafter 3 per cent.

The terms of guarantee given to the companies formed since 1880 have thus been much more favourable to the Government than in the case of those formed before 1869.

Termination of Contracts of the Old Guaranteed Companies.—In dealing with the guaranteed companies formed before 1869 and with those formed in 1881 and subsequently, it has been the practice (except in the cases mentioned above, when the purchase of some of the old guaranteed lines was postponed in order to secure to the Government a share in surplus profits) to use in some way or other at the earliest possible date the right reserved by the Government of terminating the contracts of the various companies. The method of making use of this right has differed in different cases. The Eastern Bengal, the Oudh and Rohilkhand, the Sind-Punjab and Delhi and the Southern Punjab lines were purchased and transferred to State management, the last two now forming part of the North Western Railway. Similarly, the Bengal Central line was purchased and made part of the Eastern Bengal Railway. The Madras and the Indian Midland lines were acquired but left, after acquisition, under the management of companies working other lines with which it was advantageous to amalgamate them. In the cases of South Indian, Bombay, Baroda and Central India, Southern Mahratta, and Bengal-Nagpur, the course adopted has been to arrange for the continuance of management by the original company (or by a new company closely related to the old one), but to secure more favourable financial conditions for the State by one or more of the following methods:—reduction of the amount of capital retained by the companies in the undertakings, reduction of the rate of interest guaranteed by the State on such capital and modification in favour of the Government of the clauses relating to the division of surplus profits. This method was adopted also in regard to the East Indian and the Great Indian Peninsula Railways, but the contracts under which they were being worked having terminated on the 31st December 1924 and the 30th June 1925 respectively, the management of these lines has been taken over by the State from those dates. Similarly the management of the Burma Railways was taken over by the State on the termination of the contract with the Burma Railways Company on the 31st December 1928.

Arrangements between the Government and Companies at present.—The relations between the Government and the guaranteed companies now working railways may be summarised as follows:—

The lines that they work are the property of the State.

The greater part of the capital is the property of the Government, either through having been originally supplied by it or through the acquisition by the Government of the greater part of the companies' interest on the termination of old contracts.

When funds are required for further capital expenditure, the Government has the option either of providing them or of calling on the company to provide them. Both the Government and the company usually receive interest at a fixed rate on their capital and surplus profits are divided between the Government and the company in the various proportions provided for by the contracts. The company's share is in most cases only a small proportion of the total amount.

All the contracts are terminable at the option of the Secretary of State, at specified dates; and on termination the company's capital is repayable at par.

The administrative control exercised by the Government over the companies is as follows:—

The company is bound to keep the line in good repair, in good working condition, and fully supplied with rolling-stock, plant, and machinery; to keep the rolling-stock in good repair and in good working condition; and to maintain a sufficient staff for the purposes of the line;—all to the satisfaction of the Secretary of State.

The Secretary of State may require the company to carry out any alteration or improvement in the line, or in the working that he may think necessary for the safety of the public or for the effectual working of the line.

The Secretary of State may require the company to enter into agreements, on reasonable terms and conditions, with the administrations of adjoining railways for the exercise of running powers, for the supply to one another of surplus rolling-stock, for the interchange of traffic and rolling-stock and

the settlement of through rates, and for additions and alterations to, or the redistribution of, existing accommodation in junctions or other stations in view to their convenient mutual use.

The train service is to be such as the Secretary of State may require. In order to secure a general control over the rates quoted by companies, the Secretary of State has retained power to settle the classification of goods and to authorise maximum and minimum rates within which the companies shall be entitled to charge the public for the conveyance of passengers and goods of each class.

The company has to keep such accounts as the Secretary of State may require, and these are subject to audit by the Secretary of State.

In all other matters relating to the line the company is made subject to the supervision and control of the Secretary of State, who may appoint such persons as he may think proper for the purpose of inspecting the line, auditing the accounts, or otherwise exercising the powers of supervision and control reserved to him. In particular, the Secretary of State has the right to appoint a Government Director to the Board of the company, with a power of veto on all proceedings of the Board. All the moneys received by the company in respect of the undertaking, whether on capital or revenue account, have to be paid over to the Secretary of State.

All expenditure by the company has to be stated and submitted for the sanction of the Secretary of State.

Thus, the Government has the preponderating financial interest in the lines worked by the two classes of guaranteed companies, those formed before 1869 and retained as working agencies with reduced capital after purchase, and those formed on terms more favourable to the State after 1880; it has exceedingly wide control over the methods of working; and it has the right of taking possession of the lines at specified times on re-payment at par of the capital of the companies.

Other Lines Worked by Companies.—In addition to the lines referred to above, and apart from lines constructed by Branch line companies, District Boards and Indian States, two lines of some importance have been constructed by companies which receive no direct assistance by the Government, namely, the Bengal and North-Western Railway and the Rohilkund and Kumaon Railway. (The Rohilkund and Kumaon Railway Company was guaranteed interest at 4 per cent. during construction and received for 10 years thereafter a subsidy of Rs. 20,000 per annum. This ceased in 1894). While, however, these companies have no guarantee or other direct payment from the Government, they derive some advantage (partly through direct participation in profits and partly through reduction of expenses) from the fact that the working of certain State lines has been entrusted to them, the Tirhoot Railway to the former company and the Lucknow-Bareilly Railway to the latter. Their lines can be purchased by the State in 1937 or 1942 on terms which are different in respect of the different sections of the lines, but are, on the whole, much more favourable to the companies than those provided for in the contracts with the guaranteed companies. Failing purchase in 1937 or 1942, the lines will become the property of the State in 1981 on payment of certain amounts. The general administrative control exercised by the State over these companies and the control over expenditure are similar to that which is exercised, as explained above, over guaranteed companies.

APPENDIX C.

The Organisation for Government control.

The initial policy of the Government of India for the construction and working of railways was the establishment of guaranteed railway companies of English domicile. Control over the operations of these companies was at first secured through the appointment of a Consulting Engineer of Guaranteed Railways. Some years later local Consulting Engineers were appointed for the exercise of control over guaranteed railways and over State-owned railways in the construction of which the State had been financially interested and which had been leased to companies for working. These officers combined the duties of supervision and control on behalf of the Government of India and of an Inspector under the Government of India Railway Act. The Government of India were not directly concerned with the ownership of railways until 1868 when the Calcutta and South Eastern Railway was surrendered to the Indian Government under the terms of the contract between the Secretary of State and the Company.

Owing to the Government of India having in 1869 definitely adopted the policy of direct construction and ownership of railways, a period of rapid development of railway construction ensued and it became necessary to relieve the Public Works Department Secretariat of the Government of India in some measure of the detailed control of railways. Accordingly in 1874 a State Railway Directorate was established and the greater portion of the State Railway establishment and business connected with State Railway Administration was transferred to the control of the Director of State Railways, an officer who functioned on much the same lines as the head of a department under the Government of India. The Consulting Engineer to the Government of India for State Railways was at the same time associated with him but all important matters had still to be referred to the Public Works Department. A special Deputy Secretary in the Railway Branch of the Secretariat of the Public Works Department was also appointed to conduct the correspondence between the Government of India and these officers.

Early in 1877 a further change was made in the organisation responsible for the administration and control of State Railways and in the place of one Director of State Railways three Directors of territorial systems and one Director of State Railways Stores were appointed. These territorial divisions comprised the following systems:—

Central	1,179 miles,
Western	927 miles,
and North Eastern	830 miles.

This division of the administration on a territorial basis proved unsatisfactory in practice as it resulted in the issue of conflicting orders as far as the management of open lines was concerned although no difficulty was experienced in the supervision of new construction.

As the number of lines under construction had decreased and in order to remedy the defect just mentioned, it was decided in 1880 to abolish the Directors of the Central and Western Systems and to transfer the work allotted to them to the Consulting Engineers of the neighbouring guaranteed railways. The abolition of these two appointments resulted in an increase in the administrative work of the Secretariat and it was found necessary to raise the status of the Deputy Secretary to whom the powers previously exercised by the Directors had been entrusted, to that of Director General of Railways.

In the revised organisation the Consulting Engineer to the Government of India for State Railways was associated with the Director General of Railways and assisted the latter primarily in an advisory capacity in matters of civil engineering while the Director of Stores similarly acted in matters concerning stores and rolling-stock and at the same time was an adviser in matters affecting establishment. The Director of Traffic was appointed at the same time as an adviser on traffic problems and the accounts work of the department was placed under the Accountant General, Public Works Department.

Government control and supervision of the Guaranteed Railways continued to be exercised by the Local Consulting Engineers to Government. There were five such officers at the time with headquarters at Bombay, Madras, Calcutta, Lahore and Lucknow. The Consulting Engineers at Madras and Bombay worked directly under the Government of these Presidencies, while those at Calcutta, Lahore and Lucknow were under the immediate orders of the Government of India. Under this arrangement practically all powers affecting the finances and day to day management of the

railways were vested either in the Consulting Engineers or in the Government, both for the guaranteed railway companies and later on for State Railways which had been leased for working to railway companies.

The following is a list of the administrative appointments that existed in 1881:—

1. Member of the Governor General's Council, Public Works Department.
2. Secretary, Public Works Department.
3. Deputy Secretary, Railway Branch.
4. Under Secretary, Railway Branch.
5. Consulting Engineer of State Railways.
6. Director General of Railways.
7. Director of Construction.
8. Accountant General, Public Works Department.
9. Director of State Railways, Stores.
10. Three Assistants to the Director General of Railways.
11. Consulting Engineers for Guaranteed Railways at Calcutta, Lahore and Lucknow.
12. Deputy Consulting Engineers for Guaranteed lines, Calcutta, Lahore and Lucknow.

Madras and Bombay.

13. Joint Secretary, Railway Branch and Consulting Engineer for Railways.
14. Deputy Secretary, Public Works Department.

Punjab.

15. Secretary, Public Works Department.

By this time also Local Governments and Administrations had been induced to take a practical interest in the management of railways and in a few cases short extensions had been constructed from funds the interest of which Local Governments had accepted responsibility to pay. Such lines were controlled by the Local Governments concerned under the general supervision of the Government of India.

After 1881 further alterations of a more or less detailed character were made in the administrative organisation and by 1890 the following changes had taken place. Instead of a Deputy Secretary and Under Secretary, Railway Branch, there were then only an Under Secretary and an Assistant Secretary, Railways, in the General Branch. The posts of Director of State Railways, Stores, and Director of Construction had disappeared and in their place there was an Under Secretary, who was an *ex-officio* Deputy Director General of Railways. The post of Accountant General, Railways, had also been abolished and the Accountant General, Public Works Department, was once more made responsible for this work.

Further changes were made in 1897. In that year the post of Director General of Railways was abolished and the post of a Secretary to the Government of India in the Public Works Department was created in its place. The other administrative and secretariat appointments at the headquarters of the Government of India at the time were:—

(1) Director of Railway Construction, and Deputy Secretary and *ex-officio* Director of Stores.

(2) Director of Railway Traffic, and Deputy Secretary and *ex-officio* Director of Railway Statistics.

(3) Two Under Secretaries.

(4) Two Assistant Secretaries.

(5) One Mechanical Assistant.

The post of Consulting Engineer for State Railways was also abolished and his duties transferred to the two Directors. The supervision of the accounts work of the Department, however, still remained under the Accountant General, Public Works Department, who was also an *ex-officio* Deputy Secretary to the Government of India.

In October 1901, Sir Thomas Robertson, C.V.O., was appointed by His Majesty's Secretary of State for India in Council as Special Commissioner for Indian Railways to enquire into and report on the administration and working of Indian Railways. In his report, which became available in 1903, Sir Thomas recommended that the administration of the railways in India should be entrusted to a small Board consisting of a President or Chief Commissioner who should have a thorough practical knowledge of railway working, and should be a member of the Viceroy's Council for railway

matters, and two other Commissioners who should be men of high railway standing and should have a similar training to that of the President. He recommended that the Board should, in addition to the necessary office establishment, be provided with—

(1) A Secretary who should have received a suitable training in the practical working of railways, and who should be *ex-officio* a Secretary to the Government of India.

(2) A Chief Inspector of Railways, to advise on all technical, engineering and mechanical questions.

(3) A suitable number of Government Inspectors.

Sir Thomas Robertson's recommendations were carefully considered by the Governor General in Council and the Secretary of State, and early in 1905 it was decided that the Railway Branch of the Public Works Department of the Government of India should be abolished and that the control of the railway systems in India should be transferred to a Railway Board consisting of three persons, a Chairman and two Members. The Chairman of the Board was vested with the general control of all questions committed to the Railway Board with power to act on his own responsibility subject to confirmation by the Board. The Railway Board were authorised to delegate to the Chairman or a member the power of settling questions which might arise on any tour of inspection, such decision to be recorded subsequently as an act of the Railway Board. The Board was made subordinate and directly responsible to the Government of India in the Department of Commerce and Industry.

The Railway Board assumed office in March 1905 and were provided with the following establishment:—

1. Secretary.
2. Examiner of Accounts.
3. Under Secretary, Construction.
4. Under Secretary, Traffic.
5. Registrar.
6. Director of Railway Construction.

Certain changes were, however, made in the following year and the establishment then consisted of:—

1 Secretary.
3 Assistant Secretaries; one each for Establishment, Construction and Traffic.
1 Registrar.
1 Director of Railway Construction.
1 Railway Accounts Officer.

Sir Thomas Robertson had further suggested in his detailed recommendations that extended powers, both administrative and financial, should be delegated to Boards of Directors of Companies, that the appointments of Consulting Engineers should be abolished and that the work which they performed under the Railways Act should be entrusted to a body of Government Inspectors to be appointed for the purpose. These recommendations were given effect to in a modified form in 1908.

Within a short time after the constitution of the Railway Board, it was found that work was being hampered by having the Commerce and Industry Department between the Railway Board and the Governor General in Council and in October 1908 on the recommendations of the Railway Finance Committee presided over by Sir James Mackay (now Lord Inchcape), the following changes were introduced:—

(1) The appointment of the Chairman of the Railway Board was changed into that of President of the Railway Board and enhanced powers were vested in the President.

(2) The Board with its staff became collectively the Railway Department distinct from and independent of the Department of Commerce and Industry, though remaining under the administrative charge of the Hon'ble Member, Commerce and Industry Department, as the Railway Member.

(3) The President of the Board was given direct access to the Viceroy as if he were a Secretary to the Government of India.

At the same time in consequence of the amalgamation of the Public Works Department Accounts and Civil Audit Establishments under the control of the Finance Member of the Government of India the appointment of Accountant General, Public Works Department, was abolished and the appointment of Accountant General, Railways, was revived.

In 1909 the post of Director of Railway Construction was abolished and the appointment of Chief Engineer with the Railway Board for the purpose of advising the Railway Board on technical matters connected with Civil Engineering was created.

In January 1914, it was decided that the importance of financial and commercial considerations in connection with the control of Indian railway policy justified a modification of the rule that the President and Members of the Railway Board should all be men of large experience in the actual working of railways. It was then decided that in future one member who equally with the others might be appointed President should be selected for commercial and financial experience and a member with the necessary qualifications was appointed.

This arrangement was, however, altered in 1920 when it was decided that all the three members of the Board should possess railway experience. To assist the Board however, in the consideration of financial questions, the post of Financial Adviser to Railway Board was created.

Owing to the expansion of railways in India and the increased work thrown on the Board a second Assistant Secretary, Engineering, was appointed in 1914, and in 1916 the duties of the Construction Branch were divided between one branch dealing with Projects under an Assistant Secretary and a second branch dealing with Way and Works which was sometimes under a separate officer and at other times under the Secretary or Chief Engineer. In 1922 the charge of the Way and Works branch was divided between the Assistant Secretary in charge of Projects and the Assistant Secretary in charge of Stores.

In November 1922, the Board's establishment was strengthened by the appointment of a Chief Mechanical Engineer. This appointment was created to enable the Board to have at headquarters a reliable adviser on matters connected with mechanical engineering.

During 1921 a Committee presided over by Sir William Acworth visited India and one of the questions refered to was the evolution of a satisfactory authority for the administration of the varied functions which the Railway Board had to perform as:—

(*a*) the directly controlling authority of the three State-worked systems aggregating 9,028 miles,

(*b*) representative of the predominant owning partner in systems aggregating 22,949 miles,

(*c*) the guarantor of many of the smaller companies,

(*d*) the statutory authority over all railways in India.

The Acworth Committee recommended in their report:—

(1) that a new Department of Communications responsible for railways, ports and inland navigation, road transport and posts and telegraphs under a Member of Council in charge of Communications should be created.

(2) that under the Member of Council for Communications there should be a technical staff consisting on the railway side of a Chief Commissioner and four Commissioners and that of the four one should be in charge of finance and the organisation and staff of the office and the other three Commissioners should be in charge of three respective divisions, Western, Eastern and Southern,

(3) that the technical staff attached to the Commission should be strengthened specially on the traffic side.

The Government of India, though they did not accept the first recommendation of the Acworth Committee, agreed to the re-organisation of the Railway Board being undertaken on the principles underlying the report of the Acworth Committee. The appointment of a Chief Commissioner was accordingly sanctioned in November 1922, and in accordance with the recommendations of the Acworth Committee he is solely responsible, under the Government of India, for arriving at decisions on technical questions and advising the Government of India on matters of Railway policy; he is not liable to be over-ruled, as the President was, by his colleagues in the Railway Board.

The first duty of the Chief Commissioner was to work out detailed proposals for the re-organisation of the Railway Board and as a first step he made recommendations to the Government of India for the immediate appointment of a Financial Commissioner. This recommendation was strongly endorsed by the Indian Retrenchment Committee and the appointment of the Financial Commissioner was made in April 1923 with the sanction of the Secretary of State. The further proposals of the Chief Commissioner for the re-organisation of the Railway Board were accepted by the Government of India and the Secretary of State and were introduced from the 1st April 1924. It was decided, however, for reasons connected with the present statutory position of the Railway Board, and to avoid confusion with the provisions for a Railway Commission under Chapter V of the Railways Act, to retain the name "Railway Board"

for the headquarters organisation of the Railway Department instead of "Railway Commission" as recommended by the Acworth Committee.

The Railway Board as then reconstituted consisted of the Chief Commissioner as President, the Financial Commissioner and two Members, the Chief Commissioner being Secretary to the Government of India in the Railway Department. The proposal of the Acworth Committee that the Indian Railways should be sub-divided into three territorial divisions with a Commissioner in charge of each was not accepted, and the work of the Members of the Board was divided on the basis of subjects and not on a territorial basis. One Member dealt with technical subjects and the other with general administration, personnel and traffic subjects, the Financial Commissioner representing the Finance Department on the Board and dealing with all financial questions.

The re-organisation carried out in 1924 had for one of its principal objects the relief of the Chief Commissioner and the Members from all but important work so as to enable them to devote their attention to larger questions of railway policy and to enable them to keep in touch with Local Governments, railway administrations and public bodies by touring to a greater extent than they had been able to do in the past. This object was effected by placing a responsible Director at the head of each of the main branches of the Board's work, namely Civil Engineering, Mechanical Engineering, Traffic and Establishment. The former Chief Engineer and the Chief Mechanical Engineer who had been employed mainly in consultative work, became Directors and together with the Directors of Traffic and Establishment have been made responsible for the direct disposal of the work of their branches under the general orders of the Railway Board.

The posts of Joint Secretary and 4 Assistant Secretaries were replaced by 6 Deputy Directors working under the Directors and in charge of branches dealing with Establishment, Works, Projects, Stores, Statistics and Traffic. One Assistant Director was also added to supervise the Technical Branch and the Drawing Office. The disposal of the general work of the Railway Board was provided for by the continuance of the post of Secretary in whose name all letters and orders of the Board are issued. The position of the Board as a Department of Government of India has been maintained and it works under the Member for Commerce and Railways. As already stated the Chief Commissioner is the Secretary to the Government of India in the Railway Department and orders issued by the Board over the signature of the Secretary are orders of the Government of India.

Experience of the working of this organisation during 1924-25 and the decision agreed to by the Legislative Assembly in September 1924 to separate railway finances from the general finances of the country made it necessary to appoint a Deputy Director and an Assistant Director of Finance. An Assistant Director of Statistics was also added during that year. Later a Director of Finance was added to the establishment occupying, as regards disposal of work, the same position as the Directors referred to above.

Further experience of the reduction of work resulting from the large delegation of powers and responsibility to the Agents of State-managed Railways and the Board of Directors of Company-managed railways enabled a re-arrangement of work to be made during 1925-26 accompanied by a reduction in the staff. Under this re-arrangement the posts of 3 Deputy Directors, an Assistant Director and the Assistant Secretary were held in abeyance. The personnel work was transferred from the Director of Establishment to the Secretary and a temporary post of Deputy Secretary was created. Further a separate technical office was established to take charge of the technical work of the engineering branches. The Technical Officer also acted as *ex-officio* Secretary to the permanent Standardisation Committees which were appointed to deal progressively with all questions of standards of equipment.

This arrangement was found, however, to be inadequate. In addition to the general increase in work in the Railway Board's Office consequent on the taking over of the East Indian, Great Indian Peninsula and Burma Railways under State control labour problems had assumed such importance and were so rapidly increasing in number and complexity that it was not possible to deal with them effectively without the appointment of additional staff. Accordingly it was decided to create an additional post of Member of the Railway Board to deal with staff and labour questions; leaving the Member in charge of Traffic, who had hitherto been dealing with establishment matters, to devote his whole time to questions relating to the Transportation and Commercial aspects of Railway work.

It was also decided to revive the post of Deputy Director, Establishment, so as to free the Director of Establishment from this work, and thus enable him to give his time to the study of problems of railway labour. Of the two posts of Deputy Directors of Traffic and Statistics one was held in abeyance from 1925 and the two posts have since been amalgamated.

In October 1930 the compilation of statistical information which used previously to be done in the Board's office was entrusted to the Controller of Railway Accounts, and

with the transfer of this work, the post of Assistant Director of Satistics was also transferred from the Railway Board's office to that of the Controller of Railway Accounts.

In 1931-32, in view of the decline in traffic earnings and in the number and magnitude of Engineering works owing to financial stringency, the possibility of making temporary reductions in the organisation of the Board was explored and as a result of this examination and with the approval of the Secretary of State for India the following superior posts have been held in abeyance with effect from the dates noted below:—

Member, Traffic—29th March 1932.

Member, Engineering—5th May 1932.

Director, Civil Engineering—4th December 1931.

Director, Mechanical Engineering—1st April 1932.

Deputy Secretary—1st March 1932.

Assistant Director of Finance—31st July 1931.

It was also decided, for so long as the post of Member Traffic, was held in abeyance, to create an additional temporary post of Deputy Director, Traffic, with effect from the 1st April 1932.

The re-organisation was complete in May 1932, and then the superior staff in the office of the Railway Board consisted of the Chief Commissioner, the Financial Commissioner, 1 Member, 3 Directors, 6 Deputy Directors and 1 Secretary.

Shortly after this, however, it was recognised that unless the work was to be seriously delayed, it would be impossible for the Chief Commissioner who had taken over the duties of the Member Engineering, after that post had been held in abeyance, to devote the time that was necessary for the disposal of Civil Engineering business in the Railway Board's office and it was accordingly decided to revive the post of Director of Civil Engineering, which was being held in abeyance since December 1931, with effect from November 1932, from which date the post of Deputy Director, Civil Engineering is being held in abeyance. It was also decided in October 1932 to convert the post of Chief Superintendent to that of Assistant Secretary.

The existing superior staff in the Railway Board's office consists of the Chief Commissioner, the Financial Commissioner, 1 Member, 4 Directors, 5 Deputy Directors, 1 Secretary and 1 Assistant Secretary.

For the conduct of the work connected with the production of standard designs and specifications for all classes of materials, plant and rolling stock in use on Indian Railways, a Central Standards Office for Railways was formed in January 1930 for a period of 5 years as an experimental measure. On the formation of the above office the post of Technical Officer with the Railway Board was abolished.

APPENDIX D.

Resolution regarding the separation of railway from General Finances, adopted by the Legislative Assembly on the 20th September 1924.

" This Assembly recommends to the Governor General in Council that in order to relieve the general budget from the violent fluctuations caused by the incorporation therein of the railway estimates and to enable railways to carry out a continuous railway policy based on the necessity of making a definite return to general revenues on the money expended by the State on Railways.

(1) The railway finances shall be separated from the general finances of the country and the general revenues shall receive a definite annual contribution from railways which shall be the first charge on the net receipts of railways.

(2) The contribution shall be based on the capital at charge and working results of commercial lines, and shall be a sum equal to one per cent. on the capital at charge of commercial lines (excluding capital contributed by companies and Indian States) at the end of the penultimate financial year *plus* one-fifth of any surplus profits remaining after payment of this fixed return, subject to the condition that, if in any year railway revenues are insufficient to provide the percentage of one per cent. on the capital at charge surplus profits in the next or subsequent years will not be deemed to have accrued for purposes of division until such deficiency has been made good.

The interest on the capital at charge of, and the loss in working, strategic lines shall be borne by general revenues and shall consequently be deducted from the contribution so calculated in order to arrive at the net amount payable from railway to general revenues each year.

(3) Any surplus remaining after this payment to general revenues shall be transferred to a railway reserve; provided that if the amount available for transfer to the railway reserve exceeds in any year three crores of rupees only two-thirds of the excess over three crores shall be transferred to the railway reserve and the remaining one-third shall accrue to general revenues.

(4) The railway reserve shall be used to secure the payment of the annual contribution to general revenues; to provide, if necessary, for arrears of depreciation and for writing down and writing off capital; and to strengthen the financial position of railways in order that the services rendered to the public may be improved and rates may be reduced.

(5) The railway administration shall be entitled, subject to such conditions as may be prescribed by the Government of India, to borrow temporarily from the capital or from the reserves for the purpose of meeting expenditure for which there is no provision or insufficient provision in the revenue budget subject to the obligation to make repayment of such borrowings out of the revenue budgets of subsequent years.

(6) A Standing Finance Committee for Railways shall be constituted consisting of one nominated official member of the Legislative Assembly who should be chairman and eleven members elected by the Legislative Assembly from their body. The members of the Standing Finance Committee for Railways shall be *ex-officio* members of the Central Advisory Council, which shall consist, in addition, of not more than one further nominated official member, six non-official members selected from a panel of eight selected by the Council of State from their body and six non-official members selected from a panel of eight elected by the Legislative Assembly from their body.

The Railway Department shall place the estimate of railway expenditure before the Standing Finance Committee for Railways on some date prior to the date for the discussion of the demand for grants for railways and shall, as far as possible, instead of the expenditure programme revenue show the expenditure under a depreciation fund created as per the new rules for charge to capital and revenue.

(7) The railway budget shall be presented to the Legislative Assembly if possible in advance of the general budget and separate days shall be allotted for its discussion, and the Member in charge of Railways shall then make a general statement on railway accounts and working. The expenditure proposed in

the railway budget, including expenditure from the depreciation fund and the railway reserve, shall be placed before the Legislative Assembly in the form of demands for grants. The form the budget shall take after separation, the detail it shall give and the number of demands for grants into which the total vote shall be divided shall be considered by the Railway Board in consultation with the proposed Standing Finance Committee for Railways with a view to the introduction of improvements in time for the next budget, if possible.

(8) These arrangements shall be subjected to periodic revision but shall be provisionally tried for at least three years.

(9) In view of the fact that the Assembly adheres to the resolution passed in February 1923, in favour of State management of Indian Railways, these arrangements shall hold good only so long as the East Indian Railway and the Great Indian Peninsula Railway and existing State-managed railways remain under State management. But if in spite of the Assembly's resolution above referred to Government should enter on any negotiations for the transfer of any of the above railways to Company management such negotiations shall not be concluded until facilities have been given for a discussion of the whole matter in the Assembly. If any contract for the transfer of any of the above railway to Company management is concluded against the advice of the Assembly, the Assembly will be at liberty to terminate the arrangements in this Resolution.

Apart from the above convention this Assembly further recommends—

(i) that the railway services should be rapidly Indianised, and further that Indians should be appointed as Members of the Railway Board as early as possible, and

(ii) that the purchases of stores for the State Railways should be undertaken through the organisation of the Stores Purchase Department of the Government of India."

APPENDIX E.

Government of India, Railway Department, Resolution No. 2131-F., dated the 19th February 1925, on the subject of the financing of branch lines of Railways.

The Governor General in Council, with the sanction of His Majesty's Secretary of State for India, is pleased to issue the following orders on the subject of financing of Branch Lines, in supersession of all previous orders on the subject.

1. Branch and Feeder Lines are constructed under an agreement by which the State guarantees a minimum return on the capital, or alternatively, undertakes that the line shall receive, out of the earnings of the main line from traffic contributed by the branch, such a sum, known as a rebate, as will make up the total earnings of the branch to a given sum, while the branch in each case shares with the main line any profits exceeding the guaranteed minimum.

2. This method of encouraging the construction of lines originated 30 years ago simply because the Government of India was unable to furnish the necessary capital.

3. The Acworth Committee pointed out that this method, while enabling lines to be built which would otherwise not have been built, has no other merit. The financial terms usual before the war are now quite inadequate and if the system is to continue they will have to be revised. All the witnesses before the Committee who asked for a revision of the terms admitted that, if the main line were in a position to build a given branch itself, they would prefer that it should be done by the main line rather than that it should be done as a separate undertaking.

4. Amongst the disadvantages pointed out by the Committee are the following:—

(i) The Branch Line Company is usually a fifth wheel to the coach. It implies in some cases a separate construction staff; it always implies a separate Board of Directors, and separate accounts.

(ii) Where the branch is worked by the main line, if its Directors feel that the management is unsatisfactory, they not only make representations to the main line administration, but in the last resort can appeal to the Railway Board which does not make for harmony.

(iii) Capital raised by a small private undertaking, even with a Government guarantee, will cost more than money raised by the State.

(iv) Inconceivable confusion results from the multiplication of independent Railway Companies—each company, small or great, desires to reserve for itself a separate sphere of influence; and jealously demands that, if any new-comer intrudes into that sphere, he shall pay toll to the original concessionaire. This only complicates a situation which ought to be considered solely from the point of view of the public interest. New proposals for the extension or connection of lines by small independent companies are either refused owing to protests by the old company or only permitted on a basis of elaborate accounting between the new company and the old for the profits which hypothetically would have belonged to the old line had the new line not been opened.

5. The only arguments urged in favour of the Branch Line Companies were:—

(i) That money had been raised which the Government of India was unable to furnish.

(ii) That a claim was made that the Branch Line Company obtained from local sources money that would never be subscribed to a Government loan.

(iii) That there may be cases of a Branch Line of smaller gauge *worked independently*, which the Branch Line Company can operate more economically than a main line.

6. The Acworth Committee, therefore, so far from approving of this system considered that the aim of the Government should be to reduce by amalgamation the number of existing companies and that it should only be in cases where the State cannot or will not provide adequate funds that private enterprise in the direction should be encouraged.

7. The disadvantages pointed out by the Acworth Committee required to be even further amplified. The existing Branch Line Companies have ceased for some time to raise additional capital for capital requirements. They have either obtained overdrafts from various Banks for this purpose at heavy rates of interest or issued debentures at special rates of interest (usually about 7 per cent.) or in several cases asked for money to

be advanced to them by the Railway Board. So far, therefore, from reducing the amount that the Government of India have to raise in the open market, they are at present increasing that amount.

8. Another serious disadvantage which is not mentioned by the Acworth Committee is that the main line usually works the Feeder or Branch Line for a remuneration which, in most cases, is limited to a maximum of a fixed percentage of the gross earnings of the Branch Line (usually 40 per cent. or 50 per cent.)—terms of remuneration which at present are grossly inadequate. The result of this arrangement is that many of the main lines whose working expenses are from 60 to 80 per cent. of the gross earnings are saddled with heavy expenditure which ought to have been debited to Branch Line Companies. Where the Branch Line Companies are "successful", that is, where the shares stand at a high figure, their profits are inflated owing to their working expenses being thus artificially reduced. Again, where in the case of less "prosperous" Branch Line Companies, the Government has to make a direct subsidy in order to make up the guaranteed interest on the capital, the amount paid by way of subsidy does not reveal the true loss of the Government in connection with the Branch Line Company. To this subsidy should be added also the additional loss incurred from the main line working the Branch Line at less than the actual cost. Even this, however, does not give a complete statement of the loss sustained by Government in connection with these Companies. These Companies have been supplied with land free of charge and the cost of such land is not taken into account either in the Capital or the Revenue Accounts of the Companies concerned.

9. The only real argument in favour of these Companies is that they must be utilised in cases where the Government itself is unable or declines to raise the necessary amount of capital for new constructions. It is doubtful whether such a position is likely to recur in the future. It is admitted that to use the agency of these Companies is a far more expensive method of raising money for the construction of railways than direct Government loans can ever be. The amount of assistance given by Branch Line Companies in the past has been trivial; the total amount of capital raised through the agency of Branch Line Companies has only been about Rs. $10\frac{3}{4}$ crores—an amount which in itself is less than the lapse that occurred last year in the provision for capital expenditure in the Railway Budget.

10. The difficulties and complications now experienced in connection with these Branch Line Companies are out of all proportion to the insignificant financial facilities offered by the Companies. The Government of India have therefore decided that the Branch line policy should be abandoned and that an endeavour should be made to reduce the number of the existing Branch Line Companies. If on any occasion the Government of India should be unable to find funds for construction (which is not the case at present), and should it be considered advisable to tap fresh sources for subscription to railway loans by offering terms different from those given to the ordinary Government loans, that is, by offering not only a fixed rate of interest, but a share in the profits of a particular Branch Line, there appears to be no particular advantage of using a financial half-way house specially to float a loan on such terms; there appears to be no reason why the Government should not float the loan direct. But it will probably be found sufficient to raise short term debentures at a high rate of interest—to be liquidated when the loan market is favourable—a procedure adopted now by the Branch Line Companies, but at a higher rate of interest than would be necessary for the Government.

11. There remains the case of the District Board Railways for which some of the capital or the security for the capital is secured by a special cess levied by the District Board throughout the district.

The Acworth Committee pointed out that where a District Board was the promoter of a new Branch Line, considerations other than purely commercial came into play with the result of further complications and confusion. In a footnote to the report they referred to the views expressed by the Madras Government who had drawn attention to a case in which, although no short-circuiting was involved, there had been a delay of over 10 years in arriving at a decision in regard to the terms for working a District Board Railway by the South Indian Railway Company. The amount of capital raised by District Boards for such lines has been only Rs. 137 lakhs while the amount raised by Company lines subsidised by District Boards amounts to Rs. $2\frac{1}{4}$ crores. These amounts are insignificant as compared with the total capital raised by the Government and it is clear that the relief afforded to the Government of India in raising the loans is quite disproportionate to the great complications which have resulted in the working of the railway administration. Loans raised direct by the District Boards do not relieve the market of the Government of India; the money is ultimately borrowed from the Government of India.

12. The legal position regarding the powers of District and Local Boards in the matter of railway construction and management depends in part on the Indian Railways Act, 1890, which, in the absence of express exclusion of its application, extends to all District Board railways and, in part on the nature of the provision made in the matter

in the District or Local Boards Act of the province concerned. It is only in the Madras Presidency that the question has assumed prominence and it will suffice to indicate briefly the nature of the provisions contained in the Madras Local Boards Act, 1920. Action under section 113 of that Act can only be taken " with the previous sanction of the Government of India ". Having obtained such sanction, a District Board may either itself construct and maintain a railway within, or partly within, the local area under the control of the Board, or may subscribe to any debenture loan raised by the Government of India or by any other local authority or by any company for the construction or maintenance of any railway which the Board considers likely to be of benefit to the district, or may guarantee the payment from the district fund of such sums as it shall think fit as interest on capital expended on any such railway (that is, whether the railway is constructed by the Government of India or by any other local authority or by a Company).

Section 236 of the same Act provides that the accumulations of a local railway cess may be utilised for all or any of the purposes specified in section 113, including the guaranteeing of payment of interest on capital spent on a railway.

A District Board in Madras, therefore, can guarantee the payment from the district fund of the money sufficient to make up minimum interest on capital expended on a railway within its area whether such railway is constructed by the Government of India or by a Company, the only disadvantage attaching to this particular form of guarantee being that the Act does not make the payment of the guaranteed interest a first charge on the District Board Fund.

13. The Government of India could not reasonably use their powers under the Indian Railways Act, 1890, or under, *e.g.*, section 113 of the Madras Local Boards Act, 1920, to prevent a District Board or a local body from constructing a light railway or a tramway which had no physical connection with any existing main line and which that local body proposed to work itself or through a local company. But as things stand at present there is no reason for continuing the practice under which District Boards are allowed to make money out of Branch Lines connected with a main line when they themselves cannot make any arrangements for the working of the lines and require to have them run by the main lines.

14. These District Board railways must not be confused with the light and feeder railways which constitute a provincial subject under the Devolution Rules. The provincial subject in question comprises " light and feeder railways and extra-municipal tramways in so far as provision for their construction and management is made by provincial legislation ". That is to say, it comprises only individual light or feeder railways or extra-municipal tramways for the construction and management of which specific provision has been made by an Act of the local legislature of the province concerned. Hitherto, no such legislation has been enacted with the result that the entry in question in the provincial schedule, as also the qualifying words to entry 5 (*a*)* in the central schedule, have no operation, and all existing railways of every description are included in the central subject defined in the last-named entry. It should also be observed that the provincial subject in question is " subject to legislation by the Indian Legislature in the case of any such railway or tramway which is in physical connection with a main line or is built on the same gauge as an adjacent line ", the effect being that a provincial bill designed to provide for the construction of a light or feeder railway or extra-municipal tramway in physical connection with a main line or built on the same gauge as an adjacent main line would require the previous sanction of the Governor General under clause (*f*) of sub-section (3) of section 80-A of the Government of India Act; and it may be presumed that few occasions are likely to arise in which provision will be made by local legislation for the construction of a light or feeder railway not answering one or other of these descriptions.

15. The proposal set forth in this Resolution is not designed to evade the legitimate operation of the legal position described, in the case of District Board railways, in paragraph 12 and in the case of provincial light and feeder railways, in paragraph 14; but it follows from the proposal that Local Governments and District or Local Boards should not, in the absence of special circumstances, be encouraged to build branch or feeder lines. In other words, the normal procedure will be the construction by the Government of India, or at its cost, by a Company, of a branch line which a District Board or Local Government desires to have constructed and is prepared to guarantee. But, should the railway programme not permit the construction of such a line within a reasonable time, the possibility of permitting a District Board or Local Government to construct it from its own funds would require consideration.

Unremunerative Lines.

16. The above proposals relate to the procedure adopted in the past and the procedure which it is proposed to adopt in the future for the financing of the con-

* " Railways and extra-municipal tramways, in so far as they are not classified as provincial subjects under entry 6 (*d*) of Part II of this Schedule."

struction of branch or feeder lines expected to prove remunerative from the point of view of railway earnings only. But there are cases where the Local Governments or local authorities may desire that a line should be constructed which will not be remunerative on railway earnings and the construction of which is desired by them for purely local reasons on account of the administrative advantages it is likely to confer or for the development of a particular area. It is proposed that in future the Railway Board in such circumstances should have power to arrange for the construction of the line from railway funds if the Local Government or the local authority guarantees the Railway Board against loss. The guarantee would be to the effect that the local authority would make up the difference between the net earnings and the interest and other charges payable. As it is not desirable that the Central Government should make any profit out of such contributions by local authorities; it is also proposed that where contributions have been made by a local authority for this purpose the repayment of such contributions should be a first charge on any net profits subsequently realised from the line, should the line prove remunerative.

17. The Central Government must, however, retain the power to decide whether a line is to be built or not; the proposals in the preceding paragraph must not be taken to imply that a Local Government by giving a guarantee can require the Railway Board to construct a line. Proposals of a Local Government might run counter to the general railway policy or might take the form of short-circuiting railway traffic and so lead to a reduction of receipts from existing lines.

18. These proposals have been circulated to Local Governments and have been generally welcomed by them as affording a suitable method of reconciling central and local interests and of providing for local bodies and Local Governments a method of securing the construction of railways which may be required for purely local reasons, and which, while not likely to prove remunerative on purely railway earnings, are likely to provide such indirect benefits to Local Governments and local bodies as will more than repay the amounts paid under the guarantee. Several such arrangements have already been made with Local Governments.

APPENDIX F.

I.—GAZETTED OFFICERS.

I.—Statement of Gazetted Officers and Officers of corresponding rank employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 31st March 1934 as compared with 31st March 1933.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		Rly. Board and Miscellaneous officers.		TOTAL.	
	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1. *Agency Department*—																												
1·01. Europeans	2	2	4	4	3	3	8	8	4	3	4	4	5	4	7	6	5	5	6	5	1	1	3	3	1	1	53	49
1·02. Indians—																												
(*a*) Hindus	..	..	2	2	..	..	1	1	..	..	2	2	2	2	..	1	..	..	..	1	..	..	3	3	..	..	10	12
(*b*) Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	1
(*c*) Anglo-Indians and Domiciled Europeans.	..	..	1	1	..	..	..	..	..	..	1	1	1	1	..	..	1	2	..	1	..	..	1	1	..	..	5	7
(*d*) Sikhs	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
(*e*) Indian Christians	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..
(*f*) Other classes	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	2	2
(*g*) Total	..	..	3	3	..	..	1	1	1	1	4	4	3	3	1	2	1	2	2	3	..	..	4	4	..	..	20	23
1·03. GRAND TOTAL	2	2	7	7	3	3	9	9	5	4	8	8	8	7	8	8	6	7	8	8	1	1	7	7	1	1	73	72
2. *Accounts Department*—																												
2·01. Europeans	..	..	6	6	6	6	8	8	3	4	..	2	3	4	7	8	6	7	1	..	1	1	4	4	..	..	45	50
2·02. Indians—																												
(*a*) Hindus	..	..	4	5	2	2	2	2	..	1	6	*9	5	7	2	2	2	2	9	5	2	2	7	6	1	1	42	*44
(*b*) Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	3	3	5	4
(*c*) Anglo-Indians and Domiciled Europeans.	..	..	1	1	..	..	1	1	2	1	..	1	6	8	1	1	1	2	1	1	..	..	1	..	..	..	14	16
(*d*) Sikhs	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	2	1
(*e*) Indian Christians	..	..	..	..	..	..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1
(*f*) Other classes	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	1	2	1	..	..	..	..	..	..	..	..	4	3
(*g*) Total	..	..	6	7	2	2	5	5	2	2	7	*10	11	15	4	4	5	5	13	7	2	2	8	6	4	4	69	*69
2·03. GRAND TOTAL	..	..	12	13	8	8	13	13	5	6	7	*12	14	19	11	12	11	12	14	7	3	3	12	10	4	4	114	*119
3. *Engineering Department*—																												
3·01. Europeans	13	13	46	*48	20	21	35	35	28	29	19	*26	45	45	45	*51	28	30	47	49	3	3	27	28	8	10	364	*388
3·02. Indians—																												
(*a*) Hindus	5	5	11	11	4	3	14	13	2	2	12	13	32	28	8	*6	14	15	45	48	..	..	11	11	1	*1	159	156
(*b*) Muslims	3	2	1	1	2	2	..	..	..	1	2	1	4	5	5	5	..	..	8	8	2	1	..	..	..	..	27	26
(*c*) Anglo-Indians and Domiciled Europeans.	2	3	7	7	1	1	..	1	2	3	3	..	3	5	..	..	1	1	9	7	..	..	..	..	1	1	29	29
(*d*) Sikhs	1	1	..	..	..	..	..	1	..	..	1	1	..	..	..	..	..	..	4	4	..	..	..	..	..	..	6	7
(*e*) Indian Christians	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	3	..	..	2	1	..	..	1	1	..	..	7	5
(*f*) Other classes	..	..	1	1	..	..	1	2	..	..	..	..	2	1	3	2	..	..	..	..	..	..	..	..	1	1	8	7
(*g*) Total	11	11	20	20	7	6	15	17	4	6	18	15	41	39	20	*16	15	16	68	68	2	1	12	12	3	*3	236	230
3·03. GRAND TOTAL	24	24	66	*68	27	27	50	52	32	35	37	*41	86	84	65	67	43	46	115	117	5	4	39	40	11	*13	600	*618

* Revised figures.

APPENDIX F—*contd.*

I.—Statement of Gazetted Officers and Officers of corresponding rank employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 31st March 1934 as compared with 31st March 1933—contd.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. I. P.		M., & S. M.		N. W.		R. & K.		S. I.		Ry. Board and Miscellaneous officers.		TOTAL.	
	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
4. *Transportation*—																												
4·01. Europeans	8	8	25	27	12	11	26	25	17	18	14	18	41	43	46	48	19	19	28	32	2	3	10	14	6	*7	254	*273
4·02. Indians—																												
(a) Hindus	3	4	16	14	1	1	7	7	..	..	11	11	10	12	8	10	6	6	17	15	..	..	11	10	1	1	91	91
(b) Muslims	1	1	5	5	2	1	2	2	..	..	4	4	6	5	4	4	..	..	8	7	1	1	1	1	2	*4	36	*35
(c) Anglo-Indians and domiciled Europeans.	2	2	3	4	..	..	1	2	2	1	3	3	8	5	5	5	3	3	3	4	..	..	5	4	2	1	37	34
(d) Sikhs	..	..	1	1	..	..	1	1	..	..	..	..	1	1	..	..	2	2	3	2	..	..	..	..	..	..	8	7
(e) Indian Christians	..	..	1	1	..	..	2	2	..	..	..	..	1	1	..	..	1	..	1	3	..	..	..	..	..	..	6	7
(f) Other Classes	..	..	..	..	..	..	2	2	6	6	..	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	9	10
(g) Total	6	7	26	25	3	2	15	16	8	7	18	18	26	25	17	19	13	12	32	31	1	1	17	15	5	*6	187	*184
4·03. GRAND TOTAL	14	15	51	52	15	13	41	41	25	25	32	36	67	68	63	67	32	31	60	63	3	4	27	29	11	*13	441	*457
5. *Commercial*—																												
5·01. Europeans	1	1	Included under Transportation.		1	1	Included under Transportation.						7	7	11	12	Included under Transportation.						5	3	..	..	25	24
5·02. Indians—																												
(a) Hindus	..	..			..	..							3	3	9	4							5	5	..	..	17	12
(b) Muslims	..	..			..	..							..	1	..	..							..	..	..	..	..	1
(c) Anglo-Indians and domiciled Europeans.	..	..			1	1							4	5	2	2							..	..	..	..	7	8
(d) Sikhs	..	..			..	..							..	..	..	..							..	..	..	..	..	..
(e) Indian Christians	..	..			..	..							..	..	1	..							..	..	..	..	1	..
(f) Other Classes	..	..			..	..							..	..	..	..							..	..	..	..	..	..
(g) Total	..	..			1	1							7	9	12	6							5	5	..	..	25	21
5·03. GRAND TOTAL	1	1			2	2							14	16	23	18							10	8	..	..	50	45
6. *Mechanical Engineering*—																												
6·01. Europeans	7	7	24	24	13	13	28	29	21	17	16	17	38	45	19	19	22	24	45	45	2	3	16	17	4	4	255	264
6·02. Indians—																												
(a) Hindus	2	2	5	4	..	..	3	3	..	..	5	5	12	9	5	6	1	1	4	4	..	..	5	5	..	..	42	39
(b) Muslims	1	1	1	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	2	2	..	..	..	..	..	..	6	4
(c) Anglo-Indians and domiciled Europeans.	1	1	..	..	..	..	..	..	2	2	1	1	4	5	1	1	..	..	..	1	..	..	..	..	..	..	9	11
(d) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	1
(e) Indian Christians	..	..	..	..	..	..	..	..	..	..	2	2	1	1	1	1	..	..	1	..	..	..	..	..	..	..	5	4
(f) Other Classes	..	..	1	1	..	..	..	..	..	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	3	3
(g) Total	4	4	7	6	..	..	3	3	2	2	9	9	19	15	7	8	2	2	8	8	..	..	5	5	..	..	66	62
6·03. GRAND TOTAL	11	11	31	30	13	13	31	32	23	19	25	26	57	60	26	27	24	26	53	53	2	3	21	22	4	4	321	326

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
7. *Stores Department*—																												
7·01. Europeans	1	1	5	5	1	1	6	6	2	2	2	3	7	10	5	5	5	6	7	6	..	..	3	3	..	..	44	48
7·02. Indians—																												
(*a*) Hindus	..	..	1	1	..	..	2	2	1	1	2	2	2	2	..	..	2	1	3	3	..	..	1	1	..	..	14	13
(*b*) Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	2	2
(*c*) Anglo-Indians and Domiciled Europeans.	..	..	2	2	..	..	..	..	1	1	2	3	3	2	..	..	..	..	..	..	..	..	2	3	..	..	10	11
(*d*) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
(*e*) Indian Christians . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*f*) Other Classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	1
(*g*) Total	..	..	3	3	..	..	2	2	2	2	4	5	6	4	2	2	3	2	3	3	..	..	3	4	..	..	28	27
7·03. GRAND TOTAL	1	1	8	8	1	1	8	8	4	4	6	8	13	14	7	7	8	8	10	9	..	..	6	7	..	..	72	75
8. *Other Departments*—																												
8·01. Europeans	7	10	15	17	3	3	12	12	7	9	1	1	28	31	5	6	11	12	2	1	1	..	5	5	19	19	116	126
8·02. Indians—																												
(*a*) Hindus	5	6	3	3	..	..	3	3	..	..	4	4	12	11	4	4	2	2	2	2	..	..	2	2	7	*8	44	*45
(*b*) Muslims	..	..	..	..	..	..	1	1	..	..	..	..	2	2	..	..	..	..	1	1	..	..	..	..	1	..	5	4
(*c*) Anglo-Indians and Domiciled Europeans.	2	2	..	..	..	..	..	..	1	1	1	1	5	6	1	1	..	..	1	..	..	..	..	..	3	3	14	14
(*d*) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	2	2
(*e*) Indian Christians . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	2	..	..	..	..	..	..	..	..	3	3
(*f*) Other Classes	..	..	..	..	..	..	3	3	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	1	5	5
(*g*) Total	7	8	3	3	..	..	7	7	1	1	5	5	20	20	7	7	4	4	5	4	..	..	2	2	12	*12	73	*73
8·03. GRAND TOTAL	14	18	18	20	3	3	19	19	8	10	6	6	48	51	12	13	15	16	7	5	1	..	7	7	31	*31	189	*199
9. *Total*—																												
9·01. Europeans	39	42	125	*131	59	59	123	123	82	82	56	*71	174	189	145	*155	96	103	136	138	10	11	73	77	38	*41	1,156	*1,222
9·02. Indians—																												
(*a*) Hindus	15	17	42	40	7	6	32	31	3	4	42	*46	78	74	36	*33	27	27	80	78	2	2	45	43	10	11	419	*412
(*b*) Muslims	5	4	7	7	4	3	3	3	..	1	6	5	14	13	11	11	..	..	22	20	3	2	1	1	6	*7	82	*77
(*c*) Anglo-Indians and Domiciled Europeans.	7	8	14	15	2	2	2	4	10	9	11	10	34	37	10	10	6	8	14	14	..	..	9	8	6	5	125	130
(*d*) Sikhs	1	1	2	2	..	..	1	2	..	..	2	2	3	2	..	..	2	2	10	8	..	..	..	..	..	..	21	19
(*e*) Indian Christians . . .	..	..	1	1	..	..	3	3	..	..	3	2	2	2	7	5	3	2	5	4	..	..	1	1	..	..	25	20
(*f*) Other Classes	..	..	2	2	..	..	7	8	7	7	1	1	2	2	6	5	5	4	..	..	..	..	..	..	2	2	32	31
(*g*) Total	28	30	68	67	13	11	48	51	20	21	65	*66	133	130	70	*64	43	43	131	124	5	4	56	53	24	*25	704	*689
9·03. GRAND TOTAL	67	72	193	*198	72	70	171	174	102	103	121	*137	307	319	215	219	139	146	267	262	15	15	129	130	62	*66	1,860	*1,911
9·04. Grand Total including staff on loan from the Indian Audit and Accounts Service (Department).	67	72	193	198	72	70	171	174	103	105	126	143	311	321	218	222	139	146	272	274	15	15	129	130				

* Revised figures.

APPENDIX F—*contd.*

I.—*Statement of Gazetted Officers and Officers of corresponding rank employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 31st March 1934 as compared with 31st March 1933*—concld.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		Rly. Board and Miscellaneous officers.		TOTAL.	
	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
10. *Increase (+) and Decrease (—)*																												
10·01. Europeans	—3	..	—6	..	..	..	..	..	..	..	—15	..	—15	..	—10	..	—7	..	—2	..	—1	..	—4	..	—3	..	—66	..
10·02. Indians—																												
(*a*) Hindus	—2	..	+2	..	+1	..	+1	..	—1	..	—4	..	+4	..	+3	..	..	..	+2	..	..	..	+2	..	—1	..	+7	..
(*b*) Muslims	+1	..	..	..	+1	..	..	..	—1	..	+1	..	+1	..	..	..	..	..	+2	..	+1	..	..	..	—1	..	+5	..
(*c*) Anglo-Indians and Domiciled Europeans	—1	..	—1	..	..	..	—2	..	+1	..	+1	..	—3	..	..	..	—2	..	..	..	..	..	+1	..	+1	..	—5	..
(*d*) Sikhs	..	..	..	..	..	..	—1	..	..	..	..	..	+1	..	..	..	..	..	+2	..	..	..	..	..	..	..	+2	..
(*e*) Indian Christians	..	..	..	..	..	..	..	..	..	..	+1	..	..	..	+2	..	+1	..	+1	..	..	..	..	..	..	..	+5	..
(*f*) Other Classes	..	..	..	..	..	..	—1	..	..	..	..	..	..	..	+1	..	+1	..	..	..	..	..	..	..	..	..	+1	..
(*g*) Total	—2	..	+1	..	+2	..	—3	..	—1	..	—1	..	+3	..	+6	..	..	..	+7	..	+1	..	+3	..	—1	..	+15	..
10·03. GRAND TOTAL	—5	..	—5	..	+2	..	—3	..	—1	..	—16	..	—12	..	—4	..	—7	..	+5	..	..	..	—1	..	—4	..	—51	..
11. *Percentage of Total—*																												
11·01. Europeans	58·2	58·3	64·8	*66·2	81·9	84·3	71·9	70·7	80·4	79·6	46·3	*51·8	56·7	59·3	67·4	*70·8	69·1	70·5	50·9	52·7	66·7	73·3	57·0	59·2	61·3	*62·1	62·2	*63·9
11·02. Indians—																												
(*a*) Hindus	22·4	23·6	21·8	*20·2	9·7	8·6	18·7	17·8	2·9	3·9	34·7	*33·6	25·4	23·2	16·7	*15·0	19·4	18·5	30·0	29·8	13·3	13·3	34·4	33·1	16·1	*16·7	22·5	*21·6
(*b*) Muslims	7·5	5·6	3·6	3·5	5·6	4·3	1·7	1·7	..	1·0	4·9	3·6	4·6	4·1	5·1	5·0	..	..	8·2	7·6	20·0	13·4	0·8	0·8	9·7	*10·6	4·4	4·1
(*c*) Anglo-Indians and Domiciled Europeans.	10·4	11·1	7·3	*7·6	2·8	2·8	1·2	2·3	9·8	8·7	9·1	7·3	11·1	11·6	4·7	4·6	4·3	5·5	5·2	5·3	..	..	7·0	6·1	9·7	*7·6	6·7	6·8
(*d*) Sikhs	1·5	1·4	1·0	*1·0	..	..	0·6	1·2	..	..	1·7	1·5	1·0	0·6	..	..	1·4	1·4	3·8	3·1	..	..	..	..	..	..	1·1	1·0
(*e*) Indian Christians	..	..	0·5	0·5	..	..	1·8	1·7	..	..	2·5	1·5	0·6	0·6	3·3	2·3	2·2	1·4	1·9	1·5	..	..	0·8	0·8	..	..	1·4	1·0
(*f*) Other Classes	..	..	1·0	1·0	..	..	4·1	4·6	6·9	6·8	0·8	0·7	0·6	0·6	2·8	2·3	3·6	2·7	..	..	..	..	..	..	3·2	*3·0	1·7	1·6

* Revised figures.

II.—SENIOR SUBORDINATES.

II.—Statement of Subordinates, drawing Rs. 250 per mensem and over or on scales of pay rising to Rs. 250 per mensem and over employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on 31st March 1934 as compared with 31st March 1933.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		Burma.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		Total.	
	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1. *Agency Department*—																										
1·01. Europeans	..	..	..	..	..	..	..	..	1	1	1	2	1	1	2	3	..	..	1	1	..	..	..	..	6	8
1·02. Indians—																										
(a) Hindus	1	2	5	5	1	1	9	11	5	4	10	12	8	10	4	3	3	2	5	4	1	1	3	3	55	58
(b) Muslims	..	..	..	..	..	..	4	3	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	4
(c) Anglo-Indians and Domiciled Europeans	1	1	2	2	1	1	4	3	2	1	..	..	1	1	..	..	1	..	2	4	..	..	1	1	15	14
(d) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(e) Indian Christians	..	..	..	..	..	..	2	2	1	1	..	..	..	..	3	3	..	..	1	..	..	..	..	..	7	6
(f) Other classes	..	..	..	..	..	..	4	4	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	6	6
(g) Total	2	3	7	7	2	2	23	23	10	8	10	12	9	11	8	7	4	2	8	8	1	1	4	4	88	88
1·03. Grand total	2	3	7	7	2	2	23	23	11	9	11	14	10	12	10	10	4	2	9	9	1	1	4	4	94	96
2. *Accounts Department*—																										
2·01. Europeans	..	..	..	..	..	..	3	2	..	..	2	1	9	9	4	4	..	..	1	1	..	..	..	..	19	17
2·02. Indians—																										
(a) Hindus	..	..	43	32	6	6	26	25	9	9	27	25	57	69	18	18	6	5	48	46	..	1	19	17	259	253
(b) Muslims	..	..	3	..	2	2	..	..	..	..	1	..	7	5	..	..	..	..	18	20	..	..	1	1	32	28
(c) Anglo-Indians and Domiciled Europeans	..	..	40	35	6	6	12	13	8	9	3	4	10	11	10	9	11	11	2	2	..	..	3	4	105	104
(d) Sikhs	..	..	2	2	..	..	..	..	..	..	1	..	1	1	1	1	..	..	9	9	..	..	..	..	14	13
(e) Indian Christians	..	..	2	2	1	1	2	2	1	1	..	..	..	..	3	4	..	..	1	1	..	..	..	..	10	11
(f) Other classes	..	..	..	..	..	..	7	7	..	..	..	..	..	..	4	5	1	2	..	..	..	..	..	..	12	14
(g) Total	..	..	90	71	15	15	47	47	18	19	32	29	75	86	36	37	18	18	78	78	..	1	23	22	432	423
2·03. Grand total	..	..	90	71	15	15	50	49	18	19	34	30	84	95	40	41	18	18	79	79	..	1	23	22	451	440
3. *Engineering Department*—																										
3·01. Europeans	1	1	4	4	..	..	11	12	1	1	5	7	39	49	26	21	9	11	31	31	1	1	3	3	131	141
3·02. Indians—																										
(a) Hindus	11	10	58	58	5	6	66	69	24	*24	30	35	106	116	58	56	19	18	104	104	..	..	17	20	498	*516
(b) Muslims	3	2	5	7	5	5	15	13	2	2	2	3	9	9	16	16	..	..	64	71	1	1	2	2	124	131
(c) Anglo-Indians and Domiciled Europeans	5	5	39	38	13	13	9	8	30	31	15	20	100	99	54	63	24	24	44	42	1	1	13	10	347	354
(d) Sikhs	2	2	3	3	1	1	2	2	4	*4	1	1	4	5	6	9	..	..	32	31	..	..	..	..	55	*58
(e) Indian Christians	..	..	3	2	..	..	7	7	3	*3	1	1	1	5	13	15	1	1	..	3	..	..	3	2	32	*30
(f) Other classes	..	..	..	..	..	..	23	24	3	*3	..	..	..	..	14	14	2	2	3	5	..	..	..	..	45	*48
(g) Total	21	19	108	108	24	25	122	123	66	67	49	60	220	234	161	173	46	45	247	256	2	2	35	34	1,101	1,146
3·03. Grand total	22	20	112	112	24	25	133	135	67	68	54	67	259	283	187	194	55	56	278	287	3	3	38	37	1,232	1,287

* Revised figures.

APPENDIX F—*contd.*

II.—*Statement of Subordinates, drawing Rs. 250 per mensem and over or on scales of pay rising to Rs. 250 per mensem and over employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. Nizam's State and Jodhpur Railways) on 31st March 1934 as compared with 31st March 1933*—contd.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		TOTAL.	
	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
4. *Transportation*—																										
4·01. Europeans	1	1	20	23	3	4	30	32	3	2	18	18	90	107	150	173	..	..	127	121*	1	1	8	10	451	492*
4·02. Indians—																										
(*a*) Hindus	7	6	40	42	4	4	109	108	18	18	28	26	54	50	81	85	3	3	75	71	..	..	13	15	432	428
(*b*) Muslims	..	..	6	6	1	1	6	6	2	2	1	1	7	8	13	14	..	..	24	19	..	..	1	1	61	58
(*c*) Anglo-Indians and Domiciled Europeans	13	12	42	46	15	12	40	42	69	78	54	53	167	157	429	454	30	30	63	78	5	5	23	20	950	987
(*d*) Sikhs	..	..	1	1	..	..	..	..	..	..	2	2	1	1	1	1	..	..	8	4	..	..	..	..	13	9
(*e*) Indian Christians	..	..	3	3	..	..	18	19	2	2	1	..	3	1	58	46	..	..	3	4	..	..	..	..	88	75
(*f*) Other classes	1	1	..	..	..	..	38	39	21	21	..	..	2	2	36	46	..	..	19	17	..	..	..	..	117	126
(*g*) Total	21	19	92	98	20	17	211	214	112	121	86	82	234	219	618	646	33	33	192	193	5	5	37	36	1,661	1,683
4·03. GRAND TOTAL	22	20	112	121	23	21	241	246	115	123	104	100	324	326	768	819	33	33	319	314	6	6	45	46	2,112	2,175*
5. *Commercial*—																										
5·01. Europeans	..	..			..	..							1	..	13	9			5	4			..	..	19	13
5·02. Indians—																										
(*a*) Hindus	3	3			..	..							24	22	27	31			13	13			4	4	71	73
(*b*) Muslims	..	..			1	1							4	4	4	3			5	5			..	..	14	13
(*c*) Anglo-Indians and Domiciled Europeans	..	..	Included under Transportation.		..	..	Included under Transportation.						9	11	9	7	Included under Transportation.		4	6	Included under Transportation.		..	..	22	24
(*d*) Sikhs	..	..			..	..							..	..	..	..			6	5			..	..	6	5
(*e*) Indian Christians	..	..			..	..							..	..	9	7			..	..			..	..	9	7
(*f*) Other Classes	..	..			..	..							..	..	..	..			..	..			..	..	..	..
(*g*) Total	3	3			1	1							37	37	49	48			28	29			4	4	122	122
5·03. GRAND TOTAL	3	3			1	1							38	37	62	57			33	33			4	4	141	135
6. *Mechanical Engineering*—																										
6·01. Europeans	10	11	128	147	11	11	80	82	20	20	36	40	275	287	53	56	56	67	157	198	5	4	26	27	857	950
6·02. Indians—																										
(*a*) Hindus	2	2	12	15	..	..	48	50	11	11	27	25	118	106	24	26	4	4	66	62	1	1	29	25	342	327
(*b*) Muslims	1	1	4	3	..	..	8	8	1	..	3	3	14	15	2	1	..	..	59	58	..	..	1	1	93	90
(*c*) Anglo-Indians and Domiciled Europeans	12	15	218	218	14	15	236	246	114	118*	90	90	538	546	105	106	101	97	224	210	3	2	115	119	1,770	1,782*
(*d*) Sikhs	..	..	7	4	..	..	2	2	4	4	..	..	9	5	2	2	..	..	31	35	..	..	..	..	55	52
(*e*) Indian Christians	1	1	2	1	..	..	7	7	2	2	1	1	2	7	13	13	1	1	14	3	..	..	5	3	48	39
(*f*) Other classes	2	2	3	1	..	..	37	34	11	13*	3	4	2	2	8	9	3	4	9	11	1	..	..	..	79	80*
(*g*) Total	18	21	246	242	14	15	338	347	143	148	124	123	683	681	154	157	109	106	403	379	5	3	150	148	2,387	2,370
6·03. GRAND TOTAL	28	32	374	389	25	26	418	429	163	168	160	163	958	968	207	213	165	173	560	577	10	7	176	175	3,244	3,320

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
7. *Stores Department*—																										
7·01. Europeans	..	..	..	..	..	..	2	3	..	..	..	1	3	5	3	3	1	1	6	7	..	..	1	1	16	21
7·02. Indians—																										
(a) Hindus	1	1	8	7	..	..	8	7	3	4	9	12	19	20	4	2	1	1	18	19	..	..	2	2	73	75
(b) Muslims	..	..	..	..	..	..	1	1	..	..	..	..	4	2	..	..	..	..	6	6	..	..	..	..	11	9
(c) Anglo-Indians and Domiciled Europeans	1	1	11	11	1	1	..	..	..	..	4	4	25	24	2	3	3	3	7	7	..	..	1	2	55	56
(d) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2	..	..	..	..	4	2
(e) Indian Christians	..	..	2	2	..	..	3	3	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	6	6
(f) Other classes	..	..	..	..	..	..	1	1	..	..	..	..	..	..	3	1	..	..	2	2	..	..	..	..	6	4
(g) Total	2	2	21	20	1	1	13	12	3	4	13	16	48	46	9	6	4	4	38	37	..	..	3	4	155	152
7·03. GRAND TOTAL	2	2	21	20	1	1	15	15	3	4	13	17	51	51	12	9	5	5	44	44	..	..	4	5	171	173
8. *Other Departments*—																										
8·01. Europeans	5	4	29	31	2	2	13	14	..	..	1	1	59	60	1	1	2	2	5	6	..	..	1	..	118	121
8·02. Indians—																										
(a) Hindus	9	8	35	38	4	3	34	34	20	19	11	12	72	58	9	10	15	15	8	11	..	..	3	2	220	210
(b) Muslims	..	..	1	1	..	..	1	..	4	4	2	2	8	6	..	..	..	..	5	5	..	..	1	1	22	19
(c) Anglo-Indians and Domiciled Europeans	6	3	43	48	8	8	16	17	2	2	3	3	71	60	5	5	14	12	6	8	1	1	3	3	178	170
(d) Sikhs	..	..	3	3	..	..	..	..	5	4	..	..	2	..	..	1	..	..	2	2	..	..	..	..	12	10
(e) Indian Christians	..	..	..	..	..	..	3	3	5	5	..	..	1	1	1	1	2	2	3	2	..	..	2	2	17	16
(f) Other classes	..	..	3	2	..	..	9	8	4	3	..	..	1	1	11	13	..	..	..	1	..	..	1	1	29	29
(g) Total	15	11	85	92	12	11	63	62	40	37	16	17	155	126	26	30	31	29	24	29	1	1	10	9	478	454
8·03. GRAND TOTAL	20	15	114	123	14	13	76	76	40	37	17	18	214	186	27	31	33	31	29	35	1	1	11	9	596	575
9. *Railway Board and other Railway offices*—																										
9·01. Europeans	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2
9·02. Indians—																										
(a) Hindus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	143	*142
(b) Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29	*25
(c) Anglo-Indians and Domiciled Europeans	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	27	28
(d) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	*11
(e) Indian Christians	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	3
(f) Other classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	*3
(g) Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	218	*212
9·03. GRAND TOTAL	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	219	*214

* Revised figures.

APPENDIX F—*concld.*

II.—Statement of Subordinates, drawing Rs. 250 per mensem and over or on scales of pay rising to Rs. 250 per mensem and over employed on Class 1 Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on 31st March 1934 as compared with 31st March 1933—concld.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		TOTAL.	
	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.	1934.	1933.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
10. *Total*—																										
10·01. Europeans	17	17	181	205	16	17	139	145	25	24	63	70	477	518	252	270	68	81	333	*369	7	6	39	41	1,618	*1,765
10·02. Indians—																										
(*a*) Hindus	34	32	201	197	20	20	300	304	90	*89	142	147	458	451	225	231	51	48	337	330	2	3	90	88	2,093	*2,082
(*b*) Muslims	4	3	19	17	9	9	35	31	10	9	9	9	53	49	35	34	..	..	181	184	1	1	6	6	391	*377
(*c*) Anglo-Indians and domiciled Europeans	38	37	395	398	58	56	317	329	225	*239	169	174	921	909	614	647	184	177	352	357	10	9	159	159	3,469	*3,519
(*d*) Sikhs	2	2	16	13	1	1	4	4	13	*12	4	3	17	12	10	14	..	..	92	88	..	..	..	..	171	*160
(*e*) Indian Christians	1	1	12	10	1	1	42	43	14	*14	3	2	7	14	100	89	4	4	23	14	..	..	10	7	221	*202
(*f*) Other classes	3	3	6	3	..	..	119	117	40	*41	3	4	5	5	77	89	6	8	33	36	1	..	1	1	297	310
(*g*) Total	82	78	649	638	89	87	817	828	392	404	330	339	1,461	1,440	1,061	1,104	245	237	1,018	1,009	14	13	266	261	6,642	* 6,650
10·03 GRAND TOTAL	99	95	830	843	105	104	956	973	417	428	393	409	1,938	1,958	1,313	1,374	313	318	1,351	*1,378	21	19	305	302	8,260	*8,415
11. *Increase + Decrease*—																										
11·01. Europeans	..	..	—24	..	—1	..	—6	..	+1	..	—7	..	—41	..	—18	..	—13	..	—36	..	+1	..	—2	..	—147	..
11·02. Indians—																										
(*a*) Hindus	+2	..	+4	..	..	..	—4	..	+1	..	—5	..	+7	..	—6	..	+3	..	+7	..	—1	..	+2	..	+11	..
(*b*) Muslims	+1	..	+2	..	..	..	+4	..	+1	..	..	..	+4	..	+1	..	..	..	—3	..	..	..	..	..	+14	..
(*c*) Anglo-Indians and domiciled Europeans	+1	..	—3	..	+2	..	—12	..	—14	..	—5	..	+12	..	—33	..	+7	..	—5	..	+1	..	..	..	—50	..
(*d*) Sikhs	..	..	+3	..	..	..	..	..	+1	..	+1	..	+5	..	—4	..	..	..	+4	..	..	..	..	..	+11	..
(*e*) Indian Christians	..	..	+2	..	..	..	—1	..	..	..	+1	..	—7	..	+11	..	..	..	+9	..	..	..	+3	..	+19	..
(*f*) Other classes	..	..	+3	..	..	..	+2	..	—1	..	—1	..	..	..	—12	..	—2	..	—3	..	+1	..	..	..	—13	..
(*g*) Total	+4	..	+11	..	+2	..	—11	..	—12	..	—9	..	+21	..	—43	..	+8	..	+9	..	+1	..	+5	..	—8	..
11·03. GRAND TOTAL	+4	..	—13	..	+1	..	—17	..	—11	..	—16	..	—20	..	—61	..	—5	..	—27	..	+2	..	+3	..	—155	..
12. *Percentage of total*—																										
12·01. Europeans	17·2	17·9	21·8	24·3	15·2	16·3	14·5	14·9	6·0	5·6	16·0	17·1	24·6	26·5	19·2	19·6	21·7	25·5	24·6	*26·8	35·0	31·6	12·8	13·6	19·6	*21·0
12·02. Indians—																										
(*a*) Hindus	34·4	33·7	24·2	23·4	19·0	19·2	31·4	31·3	21·5	*20·8	36·1	35·9	23·6	23·0	17·1	16·8	16·3	15·1	24·9	*23·9	10·0	15·8	29·6	29·1	25·3	*24·7
(*b*) Muslims	4·1	3·2	2·3	2·0	8·6	8·7	3·7	3·2	2·4	2·1	2·3	2·2	2·7	2·5	2·7	2·5	..	..	13·4	13·4	5·0	5·2	1·7	2·0	4·7	4·5
(*c*) Anglo-Indians and domiciled Europeans	40·3	38·9	47·6	47·2	55·2	53·8	33·2	33·8	54·0	*55·8	43·0	42·5	47·5	46·4	46·8	47·1	58·8	55·6	26·1	25·9	50·0	47·4	52·3	52·6	42·0	41·8
(*d*) Sikhs	2·0	2·1	1·9	1·5	1·0	1·0	0·4	0·4	3·1	*2·8	1·0	0·8	0·9	0·6	0·8	1·0	..	..	6·8	6·4	..	..	..	..	2·1	1·9
(*e*) Indian Christians	1·0	1·0	1·5	1·2	1·0	1·0	4·4	4·4	3·4	*3·3	0·8	0·5	0·4	0·7	7·6	6·5	1·3	1·3	1·7	1·0	..	..	3·3	2·3	2·7	2·4
(*f*) Other classes	1·0	3·2	0·7	0·4	..	..	12·4	12·0	9·6	9·6	0·8	1·0	0·3	0·3	5·8	6·5	1·9	2·5	2·4	2·6	..	..	0·3	0·4	3·6	3·7

* Revised Figures.

APPENDIX G.

Statement showing the number of appointments created and vacancies which occurred among officers of Gazetted rank on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways, and how they were filled during 1933-34.

Department.	No. of vacancies which occurred in previous years not filled in those years remaining to be filled.	No. of new appointments created during the year.	No. of vacancies which occurred during the year.	No. of appointments abolished during the year.	No. of net vacancies to be filled.	No. of vacancies not filled up during the year.	No. of vacancies actually filled.	Filled by: Europeans.	Filled by: Indians: Hindus.	Muslims.	Anglo-Indians and Domiciled Europeans.	Sikhs.	Indian Christians.	Other classes.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
State-managed Railways. (a)															
1. Agency	..	1	2	3	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	2	..	..	..	2	2	..	..	..	..	..	..	..	..	..
3. Engineering	15	9	19	..	43	43	..	..	..	..	..	..	..	..	..
4. Transportation (Traffic) and Commercial.	10	1	18	..	29	29	..	..	..	..	..	..	..	..	..
5. Transportation (Power) and Mechanical Engineering.	5	3	5	..	13	13	..	..	..	..	..	..	..	..	..
6. Stores Department	6	..	..	..	6	6	..	..	..	..	..	..	..	..	..
7. Other Departments	7	2	2	1	10	10	..	..	..	..	..	..	..	..	..
8. Total—															
1933-34	45	16	46	4	103	103	..	..	..	..	..	..	..	..	..
1932-33	7	6	49	2	60	45	15	4	2	1	3	..	1	..	7
9. Percentage of Europeans to number of vacancies filled—															
1933-34	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	36·4	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—															
1933-34	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	63·6	..	..	..	..	..	..	..	..
Other Railways.															
Assam Bengal Railway.															
1. Agency	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..
2. Accounts	..	..	1	..	1	..	1	1	..	..	..	..	..	..	..
3. Engineering	3	..	3	..	6	1	5	1	2	2	..	..	..	..	4
4. Transportation and Commercial	..	..	1	..	1	..	1	1	..	..	..	..	..	..	..
5. Mechanical	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6. Stores	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
8. Total—															
1933-34	3	1	5	..	9	2	7	3	2	2	..	..	..	..	4
1932-33	1	1	5	2	5	3	2	1	..	..	1	..	..	..	1
9. Percentage of Europeans to number of vacancies filled—															
1933-34	..	..	..	..	..	..	42·9	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	50·0	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—															
1933-34	..	..	..	..	..	..	57·1	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	50·0	..	..	..	..	..	..	..	..

(a) As a result of a number of posts being abolished during the years 1931-32 and 1932-33 there was an excess of officers in certain Departments and consequently some of the vacancies to be filled during the year were taken as set off against the excess, in respect of columns 6 and 7.

APPENDIX G—*contd.*

***Statement showing the number of appointments created and vacancies which occurred among officers of Gazetted rank on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways, and how they were filled during 1933-34*—contd.**

Departments.	No. of vacancies which occurred in previous years not filled in those years remaining to be filled.	No. of new appointments created during the year.	No. of vacancies which occurred during the year.	No. of appointments abolished during the year.	No. of net vacancies to be filled.	No. of vacancies not filled up during the year.	No. of vacancies actually filled.	FILLED BY: Europeans.	Indians: Hindus.	Muslims.	Anglo-Indians and Domiciled Europeans.	Sikhs.	Indian Christians.	Other classes.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Bengal and North Western Railway.															
1. Agency	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Engineering	..	..	1	..	1	..	1	..	..	1	..	..	..	..	1
4. Transportation and Commercial	1	..	1	..	2	1	1	..	..	1	..	..	..	..	1
5. Mechanical	..	..	1	..	1	..	1	1	..	..	..	..	..	..	..
6. Stores	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..
7. Other Departments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
8. TOTAL— 1933-34	2	..	3	..	5	2	3	1	..	2	..	..	..	..	2
1932-33	4	1	3	..	8	2	6	5	..	..	1	..	..	..	1
9. Percentage of Europeans to number of vacancies filled— 1933-34	..	..	..	..	..	..	33·3	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	83·3	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled— 1933-34	..	..	..	..	..	..	66·7	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	16·7	..	..	..	..	..	..	..	..
Bengal Nagpur Railway.															
1. Agency	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	1	..	1	..	2	2	..	..	..	..	..	..	..	..	..
3. Engineering	7	..	2	..	9	9	..	..	..	..	..	..	..	..	..
4. Transportation and Commercial	3	..	4	..	7	4	3	1	2	..	..	..	..	..	2
5. Mechanical	3	..	1	1	3	3	..	..	..	..	..	..	..	..	..
6. Stores	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	..	..	2	..	2	2	..	..	..	..	..	..	..	..	..
8. TOTAL— 1933-34	14	..	10	1	23	20	3	1	2	..	..	..	..	..	2
1932-33	12	2	8	11	11	14	—3	—3	—1	..	1	..	..	..	..
9. Percentage of Europeans to number of vacancies filled— 1933-34	..	..	..	..	..	..	33·3	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	—100·0	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled— 1933-34	..	..	..	..	..	..	66·7	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	*Nil.*	..	..	..	..	..	..	..	..
Bombay, Baroda and Central India Railway.															
1. Agency	3	..	..	..	3	3	..	..	..	..	..	..	..	..	..
2. Accounts	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..
3. Engineering	6	..	3	2	7	5	1	..	1	..	..	..	..	..	1
4. Transportation and Commercial	3	..	..	..	3	3	2	1	1	..	..	..	..	..	1
5. Mechanical	1	..	1	..	2	2	..	..	..	..	..	..	..	..	..
6. Stores	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..
8. TOTAL— 1933-34	15	..	4	2	17	14	3	1	2	..	..	..	..	..	2
1932-33	19	3	11	8	25	15	10	3	4	1	..	1	1	..	7
9. Percentage of Europeans to number of vacancies filled— 1933-34	..	..	..	..	..	..	33·3	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	30·0	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled— 1933-34	..	..	..	..	..	..	66·7	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	70·0	..	..	..	..	..	..	..	..

APPENDIX G—*concld.*

Statement showing the number of appointments created and vacancies which occurred among officers of Gazetted rank on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways, and how they were filled during 1933-34—concld.

Departments.	No. of vacancies which occurred in previous years not filled in those years remaining to be filled.	No. of new appointments created during the year.	No. of vacancies which occurred during the year.	No. of appointments abolished during the year.	No. of net vacancies to be filled.	No. of vacancies not filled up during the year.	No. of vacancies actually filled.	FILLED BY: Europeans.	Indians: Hindus.	Muslims.	Anglo-Indians and Domiciled Europeans.	Sikhs.	Indian Christians.	Other classes.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Madras and Southern Mahratta Railway.															
1. Agency	1	..	..	2	—1	..	—1	..	..	..	—1	..	..	..	—1
2. Accounts	1	..	3	..	4	2	2	..	1	..	..	..	..	1	2
3. Engineering	2	1	3	3	3	1	2	2	..	..	..	..	..	..	..
4. Transportation and Commercial	..	..	1	..	1	..	1	..	..	..	..	..	1	..	1
5. Mechanical	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..
6. Stores	..	..	1	..	1	..	1	..	1	..	..	..	..	..	1
7. Other Departments	1	..	1	1	1	1	..	..	..	..	..	..	..	..	..
8. TOTAL—															
1933-34	5	1	11	8	9	4	5	2	2	..	—1	..	1	1	3
1932-33	3	..	7	1	9	5	4	2	2	..	..	..	..	..	2
9. Percentage of Europeans to number of vacancies filled—															
1933-34	..	..	..	..	..	..	40·0	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	50·0	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—															
1933-34	..	..	..	..	..	..	60·0	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	50·0	..	..	..	..	..	..	..	..
Rohilkhand and Kumaon Railway.															
1. Agency	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4. Transportation and Commercial	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5. Mechanical	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6. Stores	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	..	1	..	..	1	..	1	1	..	..	..	..	..	..	..
8. TOTAL—															
1933-34	..	1	..	..	1	..	1	1	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9. Percentage of Europeans to number of vacancies filled—															
1933-34	..	..	..	..	..	..	100·0	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—															
1933-34	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
South Indian Railway.															
1. Agency	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Engineering	5	1	..	3	3	3	..	..	..	..	..	..	..	..	..
4. Transportation and Commercial	3	..	2	..	5	3	2	..	1	..	1	..	..	..	2
5. Mechanical	1	..	1	..	2	..	2	2	..	..	..	..	..	..	..
6. Stores	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	1	1	..	1	1	..	1	..	1	..	..	..	..	..	1
8. TOTAL—															
1933-34	10	3	3	5	11	6	5	2	2	..	1	..	..	..	3
1932-33	14	1	6	5	16	10	6	2	3	..	1	..	..	..	4
9. Percentage of Europeans to number of vacancies filled—															
1933-34	..	..	..	..	..	..	40·0	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	33·3	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—															
1933-34	..	..	..	..	..	..	60·0	..	..	..	..	..	..	..	..
1932-33	..	..	..	..	..	..	66·7	..	..	..	..	..	..	..	..

APPENDIX H.

Officers of the Railway Department (Railway Board) and attached offices, on 31st March 1934.

The Hon'ble Sir JOSEPH BHORE, K.C.S.I., K.C.I.E., C.B.E., I.C.S.,
Member of Council of the Governor General.

Railway Board.

The Hon'ble Sir Guthrie Russell, Kt.	Chief Commissioner of Railways.
Mr. P. R. Rau	Financial Commissioner of Railways.
Mr. C. P. Colvin, O.B.E.	Member.

Mr. A. F. Harvey, F.C.H.	Director, Civil Engineering.
Mr. T. S. Sankara Aiyar, B.A., B.E.	Director, Finance.
Mr. N. D. Calder	Director, Traffic (*Offg.*).
Rai Bahadur Mathra Das	Director, Establishment (*Offg.*).
Mr. L. H. Kirkness, D.S.O., O.B.E., V.D.	Secretary (*Offg.*).
Khan Bahadur Barkat Ali	Deputy Director, Finance.
Mr. F. D'Souza	Deputy Director, Traffic (Commercial).
Mr. K. M. Hassan	Deputy Director, Establishment.
Khan Sahib Z. H. Khan	Deputy Director, Traffic (Transportation) (*Offg.*).
Mr. T. G. Creighton	Deputy Director, Mechanical Engineering (*Offg.*).
Mr. E. C. Rundlett	Assistant Secretary (*on leave*).
Mr. H. W. C. C. Smith	Assistant Secretary (*Offg.*).

Attached Officer.

Mr. H. C. B. Jollye, B.A., I.F.S.	Timber Advisory Officer.

Attached Offices.

Office of the Supervisor of Railway Labour.

Major H. W. Wagstaff, M.C., R.E.	Supervisor of Railway Labour.

Central Standards Office for Railways.

Mr. J. M. D. Wrench, C.I.E.	Chief Controller of Standardisation.
Mr. E. Ingoldby	Deputy Chief Controller of Standardisation.
Mr. L. H. Swain	Assistant Chief Controller of Standardisation.
Mr. T. T. Lambe	Chief Mechanical Draftsman.
Mr. J. V. S. Edwards	Chief Structural Draftsman.

Office of the Controller of Railway Accounts.

Mr. L. S. Deane	Controller of Railway Accounts.
Mr. C. V. S. Rao, M.A.	Deputy Controller of Railway Accounts.
Mr. K. K. Sen, M.A.	Assistant Controller of Railway Accounts.
Mr. K. Ubaid Ullah, B.A.	Assistant Accounts Officer.

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